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UNIVERSITY OF LONDON

School of Oriental and African Studies

A Morpho-semantic Analysis of the Persistent, Alternative and Inceptive Aspects in siSwati

A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of
Philosophy in Linguistics

by

Peter John Nichols

February 22nd 2011

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Peter John Nichols

Abstract

This study develops an analysis of three aspects in siSwati, a southern African Bantu language spoken in Swaziland and South Africa: PERSISTIVE aspect, encoded by the aspect marker *-sa-*, ALTERATIVE aspect, encoded by *-se-* and INCEPTIVE aspect encoded by *be-*. A distinctive characteristic of two of the aspects is that they link two separate time periods and so I have described them as dual-time period aspects. One is the PERSISTIVE which is an aspect already well-documented and studied cross-linguistically in the Bantu languages and other groups and the other I have analysed as the ALTERATIVE which is a new term I have applied to an aspect not formerly recognized in linguistic studies. The PERSISTIVE aspect links two separate time periods in which an activity is persisting in both or not persisting in both, while the ALTERATIVE aspect links two separate time periods with an activity polarity switch (same activity) or an activity switch (different activity). The INCEPTIVE aspect indicates the beginning of (with stative verbs), or entry into (with dynamic verbs) a situation or state. In siSwati temporal cognition, change (ALTERATIVE) is afforded greater salience than continuity (PERSISTIVE). The PERSISTIVE has two senses differentiated by whether external forces are surmounted or not, so a PERSISTIVE aspect which describes a situation that continues unopposed is ‘weak’, and one which describes a situation surmounting obstacles is ‘strong’ and *-sa-* encodes ‘weak’ PERSISTIVE. The ALTERATIVE has a sub-sense which encodes Exclusivity. The analysis is set within the framework of the cognitive linguistic enterprise and draws on Botne and Kershner's cognitive approach to the analysis of Bantu TAM systems (Botne and Kershner, 2008) and their tertiary timeline, dual domain cognitive model which can be used effectively to represent and analyse the dual-time period aspects. Fauconnier's Mental Spaces Theory supplemented by Cutrer's recent work is also applied in representing my research findings (Cutrer, 1994, Fauconnier, 1985) and the cognitive approach produces fresh insights into the roles of *-sa-* and *-se-* as space builders and dual-time period aspect markers and *be-* as a tense/aspect marker and auxiliary.

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Text conventions:

1. Non-English lexemes are italicized: *si-khatsi*, as are English lexemes referenced in text: *time*.

2. Morphologically encoded siSwati tenses, aspects and moods in the main text: small capitals: PRESENT, PERSISTIVE and POTENTIAL. Where tense, aspect or mood is not morphologically encoded in siSwati: normal text with initial capital letter: Progressive.

This convention is used when another language (i.e. English) is under discussion:

PROGRESSIVE. So small capitals signify language specific, not universal, tense, aspect and

mood. Temporal location references are in normal text i.e. ‘an event in the present’ but PRESENT tense.

3. Cognitive models, temporal concepts/senses and conceptual metaphors: small capitals and square brackets: [MOVING EGO]. Lexical concepts: normal or italicized text and square brackets [time] and [*si-khatsi*].

4. Morphological abbreviation in glosses: small capitals: CONJ.

5. Book titles are italicized: *The Concise siSwati Dictionary*.

6. Semantic emphasis is indicated in **bold** type.

7. Phonetic stress is underlined: Ngì-tò-b-è sé-ngí-ngà-ká-làl-ì (underlining is also used for identification but the different uses are clear from the various occurrences in the text).

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A comprehensive list of those who assisted me as informants or consultants would be too long for inclusion here but for each interview I completed a control sheet containing the details of the informant and the full set of ninety eight interviews (control sheet, transcription and digital recording) will be available on my web-site when it is launched. Four individuals must be acknowledged here though as between them they completed two thirds of my interviews and they are: Mavis Mavimbela (31 interviews), Titi Nzima (16), Lungile Nkhoma (12) and Lindi Nkambule (6). My sincere thanks to them as they were definitely my Fantastic Four (Story, 2007).

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Abbreviations

The list of abbreviations follows those used in *The Bantu Languages* (Nurse and Philippson, 2003), *A Glossary of Terms for Bantu Verbal Categories with Special Emphasis on Tense and Aspect* (Rose et al., 2002), the *Concise siSwati Dictionary* (Rycroft, 1981) and *A Grammar of the Swati Language* (Ziervogel and Mabuza, 1976) together with additions and alterations of my own.

1sg	First person singular
1pl	First person plural
2sg	Second person singular
2pl	Second person plural
1	Class 1; third person singular
2	Class 2; third person plural
AP	absolute pronoun
AC	adjectival concord
AS	adjectival stem
ADJ	adjective
ADV	adverb
AUX	auxiliary
C	consonant
Comp	complement
CONJ	conjunction
COP	copula
D-domain	Dissociated domain
DEF	deficient
DEM	demonstrative
DP	demonstrative pronoun
EC	enumerative concord
ES	enumerative stem
ENCL	enclitic
FV	final vowel
H	high tone
ID	ideophone
INTRG	interrogative
INTJC	interjection
L	low tone
Lit:	literal translation
LOC	locative
N	noun
OC	objectival concord
PC	possessive concord
P-domain	Privileged domain
PFX	prefix
PLC	pre-locative consonant
PS	possessive stem

PTC	PAST tense concord
QC	quantitative concord
QP	quantitative pronoun
QS	quantitative stem
RC	relative concord
REL	relative
RS	relative stem
SC	subjectival concord
V	vowel
VB	verb

Verbal terminology, particularly tense, aspect and mood:

ACT	ACTIVE ¹
ALT	ALTERATIVE
Alt	Alterativity
ANT	ANTERIOR
APP	APPLICATIVE
BAS	BASIC
CAUS	CAUSATIVE
COMP	COMPLETIVE
CON	conjoint
COND	CONDITIONAL
CONT	CONTINUOUS
DIS	disjoint
E	Event time
EXC	EXCLUSIVE
Exc	Exclusivity
FUT	FUTURE
HAB	HABITUAL
Hab	Habituality
IMM	IMMEDIATE
IMP	IMPERSONAL
IMPV	IMPERATIVE
IMPERF	IMPERFECTIVE
INC	INCEPTIVE
IND	INDICATIVE
INF	INFINITIVE
NEG	negative
NEUT	NEUTER
PART	PARTICIPIAL
PASS	PASSIVE
PERF	PERFECT
PERFV	PERFECTIVE
PERS	PERSISTIVE
Pers	Persistivity
PLUP	PLUPERFECT

¹ In the main text morphologically encoded siSwati tenses, aspects and moods appear in small capitals.

POS	positive
Post	posterior
POT	POTENTIAL
PRES	PRESENT
PROG	PROGRESSIVE
R	Reference time
REC	RECIPROCAL
REFL	REFLEXIVE
REM	REMOTE
REV	REVERSIVE
RSL	RESULTATIVE
S	Speech time
SIT	SITUATIVE
STAT.PERF	STATIVE PERFECT
SUBJ	SUBJUNCTIVE
TAM	tense-aspect-mood
Temp	Temporality
Ø	zero, null

1. Introduction

In this analysis I describe three aspects and their markers in siSwati, two of which have a common feature as they both link two separate time periods and are called dual-time period aspects. One is the PERSISTIVE, morphologically encoded by *-sa-*, which is well-documented and studied cross-linguistically in the Bantu languages and other language groups and the other I have analysed as the ALTERATIVE, encoded by *-se-*, which is a new term for an aspect not formerly recognized in linguistic studies.

The third aspect is the INCEPTIVE which is encoded jointly by *be-* and the FUTURE marker in the auxiliary verb of compound verbal forms. The INCEPTIVE marker also encodes PAST tense and CONDITIONAL aspect in what are termed the compound tenses with *be-* in siSwati and which are described as continuous tenses by the authors of the standard grammars and dictionary used in this analysis (Ziervogel and Mabuza, 1976, Taljaard et al., 1991, Rycroft, 1981). Neither the INCEPTIVE nor the CONDITIONAL are dual-time period aspects.

Compound tenses have an auxiliary and a lexical verb, appear in analytic or contracted form and can appear with various auxiliaries but with *be-* they are also described as continuous which is an inappropriate term for reasons which are explained in my analysis. Although *be-* is also a PAST tense marker it would not be appropriate to label them PAST compound tenses as not all forms are PAST tense. The compound tenses with *be-* are morphologically encoded and comprise a range of relative and absolute tenses which display PERFECTIVE and IMPERFECTIVE aspectuality.

Chapter two is a morpho-syntactic overview of siSwati grammatical structure in which I describe the noun classes and their agreement and the verb and its TAM morphology. SiSwati is an agglutinative language and the verbal form consists of nine slots. The formative/morpheme *-sa-* performs the role of PERSISTIVE aspect marker and normally occupies TAM slot four whereas *-se-* acts as ALTERATIVE aspect marker or auxiliary and generally occupies the initial slot but can occupy slot four when marking aspect and the final slot as auxiliary. A formative is an irreducible, grammatical element which enters into the formation of larger linguistic units (Crystal, 1992: 143) and a morpheme is the minimal distinctive unit of grammar that can be free (occur as a separate word) or bound (cannot so occur) (Crystal, 1992: 257). Both morphemes undergo phonological change in certain

environments which are analysed in chapters four and five. The tense/aspect marker *be-* appears word-initially encoding PAST tense and IMPERFECTIVE aspect (INCEPTIVE and/or CONDITIONAL in conjunction with the FUTURE marker in the auxiliary verb) and can also appear word-finally as auxiliary *-be* in compound tenses. When acting as tense marker it takes high tone to encode REMOTE PAST and low tone to encode IMMEDIATE PAST. There are five moods in siSwati which I review followed by sections on copulative predication and word order.

In chapter three I describe the methodology employed during my three field visits to Swaziland and the elicitation tools that I devised for the purpose. These were a collection of representational timeline sheets, computer generated pictograms symbolizing activities and aspectuality at Event time and time reference symbols representing Speech time, Reference time and polarity. A complete profile of these elements is included in the appendices. Chapter three also reviews and evaluates the strengths and weaknesses identified during the implementation of my methodological approach which consisted of ninety-eight formally structured, digitally recorded interviews that were transcribed, marked for tone and followed by a series of informal consultant reviews which investigated specific issues but were not digitally recorded.

In chapters four and five I review the PERSISTIVE and ALTERATIVE aspects and their markers *-sa-* and *-se-*. The PERSISTIVE aspect links two separate time periods in which an activity or event is persisting or not in both. The ALTERATIVE aspect also links two separate time periods, but no activity is continuing in either period: either the activity did take place, but no longer takes place, or it did not take place but takes place now ('polarity switch'), or a different activity takes place in the second time period ('activity switch'). The PERSISTIVE has two distinct senses differentiated by whether external forces are surmounted or not and in this analysis a situation that continues un-opposed is described as 'weak' PERSISTIVE, and one that surmounts obstacles to continuation is 'strong' PERSISTIVE. The aspect marker *-sa-* encodes 'weak' PERSISTIVE and I have posited that situations are assessed individually with contextual and cognitive factors influencing categorization. The ALTERATIVE also has a distinct sub-sense which indicates Exclusivity. The ALTERATIVE aspect marker *-se-*

jointly with temporal adverbs *nyalo* or *manje*² establishes a semantic connection between situations in bi-clausal sentences and the behaviour of these three lexemes is analysed. The aspect markers *-sa-* and *-se-* do not appear in the same verbal form but can appear together in the same predicate. Semantically ALTERATIVE and PERSISTIVE aspects are mutually exclusive, as an event cannot be both changing and continuing, but an expression can encode both when multiple events appear sequentially and siSwati has lexical and morphological strategies to accommodate such situations. It is a prediction of this analysis that the auxiliary and conjunction *solo* which indicates Persistivity lexically is taking over functions of *-sa-* as the canonical marker of the PERSISTIVE and the present analysis shows that this development is likely to continue. *Solo* is semantically versatile and can indicate Persistivity ('still') and Alterativity ('since') and these two senses are reviewed in relation to both of its roles.

In chapter six I analyse a group of morphologically encoded absolute and relative tenses which display IMPERFECTIVE and PERFECTIVE aspectuality. They are a set of compound tenses with the morpheme *be-* which is the PERFECT form of the copula verb *ku-b-a* ('to be') that has grammaticalized to become a tense/aspect marker and auxiliary encoding PAST tense and/or IMPERFECTIVE aspect. There are contracted and analytic forms and the latter comprise an auxiliary and lexical verb. The tense/aspect marker *be-* encodes INCEPTIVE or CONDITIONAL aspect in these forms which determine actual event outcome and certainty of outcome. Whilst the standard grammars suggest the contracted forms are more common in everyday speech, my data reveal they are in transition with both being used and encoding different semantic profiles. SiSwati also has morphologically encoded PERFECT and PERFECTIVE tenses which are included in my analysis.

Chapter seven analyses another of the major assertions of this thesis that greater salience is afforded to change (ALTERATIVE aspect) than continuity (PERSISTIVE aspect) in siSwati temporal cognition. The role of adjectives in siSwati has relevance for this assertion which is specifically addressed by analysing the paucity of adjectives in the lexicon and the alternative strategy of relative constructions used as modifiers. An analysis of tense selection involving the PERFECT and PAST tenses also lends support to the assertion as does

² Semantically *manje* and *nyalo* have similar meanings and Rycroft describes *manje* as isiZulu which may explain the existence of two synonymous temporal adverbs (Rycroft, 1981: 61).

a review of the relationship between cognitive models of time and the ALTERATIVE and PERSISTIVE dual-time period aspects.

Chapter eight is a practical application of one of the major theoretical perspectives of this analysis, Mental Spaces Theory (MST) (Fauconnier, 1985) which introduces the basic principles of this theoretical approach and the subsequent work of Cutrer on tense and aspect in narrative and natural language that adopts MST as an analytical tool (Cutrer, 1994). I then present my analysis of an example discourse which incorporates PERSISTIVE and ALTERATIVE aspect markers and the compound tenses with *be-*. My fieldwork data is represented using the mental spaces model and all three tense/aspect markers (ALTERATIVE, PERSISTIVE and INCEPTIVE) can be accommodated within the lattice structure of mental spaces and their functionality as space builders is explored.

In chapter nine I introduce cognitive models of time (Evans, 2004) followed by a review of Botne and Kershner's (B&K) cognitive linguistics approach to Bantu TAM systems (Botne and Kershner, 2008). B&K's tertiary timelines and dual domains model is the other major theoretical perspective adopted in this analysis. In a formal analysis I apply the model to examples incorporating the PERSISTIVE and ALTERATIVE aspect markers *-sa-* and *-se-*, PERFECT tenses, compound tenses with the PAST/IMPERFECTIVE tense/aspect marker *be-* and auxiliary *-be* and counter-expectational constructions. With its Privileged and Dissociated cognitive domains, the model complements MST and exhibits considerable explanatory force regarding the nature and functionality of the three morphemes as space builders and the roles of *-sa-* and *-se-* as dual-time period aspect markers.

In chapter ten I set out my conclusions which include a re-analysis of the siSwati TAM system, a profile of the compound tenses in siSwati and a section which looks at the wider implications arising from this study.

The transcripts of the interviews conducted during my fieldwork and described in the chapter on methodology were marked for tone by listening to the digital recordings and comparing with the standard grammars and dictionary wherever tone was marked on identical forms. Whilst I am confident they are tonally accurate, without specialized equipment it was not an easy task as examples from the literature were often not marked for

tone and the examples obtained from consultants during my consultant reviews were generally not analysed for tone. While I made notes of all consultations unlike the formal interviews they were not digitally recorded. In view of the above, my thesis is presented largely without tone marked except where I considered tone to be significant and where I had confidence that my analysis was accurate.

2. Overview of siSwati Structure

SiSwati is a Bantu language spoken in Swaziland, an independent kingdom in southern Africa, sharing borders with the Republic of South Africa and Mozambique. There are about 400m Niger-Congo speakers and of these 240m are Bantu speakers (roughly one African in three) (Nurse and Philippson, 2003: 1). There are about 1.6m speakers of siSwati of whom about 1.0m live in Swaziland and about 0.6m in South Africa (Nurse and Philippson, 2003: 610, Taljaard et al., 1991). SiSwati is classified as part of the Nguni sub-group in the family of Niger-Congo (S43 on Guthrie's classification) (Maho, 2003).

This chapter provides an overview of siSwati grammatical structure and is organised as follows. Section 2.1 is a glossary of the most important and frequently encountered terms used throughout this thesis, in one alphabetical sequence for easier reference. Section 2.2 is an introduction and overview of the morphology and syntax of siSwati divided into the following sub-sections: 2.2.1 and 2.2.2 deal with noun classes, agreement and the verb and are followed by 2.2.3 which looks at tense and aspect morphology from a universal and siSwati view, lastly 2.2.4 looks at verbal aspect and aspectual inflection in statives in siSwati and Tswana, another southern African Bantu language. Section 2.3 is a review of the five principal siSwati moods and their tenses, which is followed by 2.4 on copulative predication. Section 2.5 deals with word order and concludes the chapter.

2.1 Definition of central terms and concepts

An alphabetical summary of the most important and frequently encountered terms follows, principally based on Rose et al. (2002) and Nurse (2008), while any further minor terms will be defined upon first use.³

Absolute tense	This is a traditional but misleading term that has come to be used to refer to tenses which take the present moment as their deictic centre. Absolute time reference is impossible as the only way of locating a
----------------	--

³ Morphologically encoded siSwati tenses, aspects and moods in the main text are in small capitals: PERSISTIVE. Where tense, aspect or mood is not morphologically encoded in siSwati I use normal text with initial capital letter: Progressive. This convention is used when another language (i.e. English) is discussed: PROGRESSIVE. So small capitals signify language specific, not universal, tense, aspect and mood.

situation in time is relative to some other established time point so it would be more accurately interpreted to mean a tense which includes as part of its meaning the present moment as deictic centre (Comrie, 1985: 36).

ALTERATIVE	The morpheme <i>-se-</i> encodes the ALTERATIVE aspect in siSwati and describes an activity or event that was happening or not happening at an anterior time period prior to Reference or Speech time and is not happening or is happening respectively at a subsequent time period (a polarity switch). The ALTERATIVE aspect also encodes a switch between events (an activity switch). This aspect is described and analysed in chapter five and is distinct from the INCEPTIVE and INCHOATIVE aspects which it resembles.
Aspect	Aspect is typically defined as expressing the internal temporal constituency of a situation (Comrie, 1976: 5). Whereas PERSISTIVE and ALTERATIVE aspects express a relationship between two separate time periods or situations, I regard them as aspects and not tenses as their internal temporal constituency is viewed as encompassing both time points and the intervening period. Both aspects can be encoded in past, present and future forms.
Deixis	Deixis is linguistic pointing: the use of grammatical items like <i>this</i> and <i>that</i> , <i>here</i> and <i>there</i> , <i>now</i> and <i>then</i> , etc. Deictic categories may include person marking <i>I/him</i> , or indications of deictic position, either temporal or locational. Tense (in contradistinction to aspect) is often referred to as a deictic category, as it locates the event in a specific time frame (Rose et al., 2002, Dahl, 1985).
Event time	One of three time points in Reichenbach's Triple time system (SER). Event time is the moment a situation or action takes place (Reichenbach, 1947).

EXCLUSIVE	The EXCLUSIVE is an aspect defined by Doke as describing an event that occurred after non-occurrence in the past (Doke, 1947: 179).
FUTURE	The FUTURE (tense) refers to an Event occurring after Reference time.
IMMEDIATE	In terms of relative temporal proximity immediate meaning only includes yesterday (hesternal), today (hodiernal) or tomorrow (crastinal) and is dependent on the number of tenses (PAST and FUTURE) in a given language (Rose et al., 2002: 34). In my fieldwork interviews I have selected those time periods suitable for siSwati and this is reflected in the design of my elicitation tools (see appendices).
IMPERFECTIVE	Contrasts with PERFECTIVE and represents the subject in the process of doing the event, or within the boundaries of the event by referring to the internal structure of a situation, viewed from within. The term covers aspects such as HABITUAL, PROGRESSIVE and PERSISTIVE.
INCEPTIVE	(aspect or <i>Aktionsart</i> or verb type): as traditional terms for grammaticalized aspects, INCEPTIVE, INGRESSIVE and INCHOATIVE are used identically by some authors (Bybee et al., 1994: 318). They refer to any form used to indicate the beginning of (with stative verbs), or entry into (with dynamic verbs) a situation or state, often translated by ‘be about to do’ or ‘be on the point of doing’ (Nurse, 2008: 312).
INFINITIVE	Described in general linguistics as a non-finite verb form minimally marked morphologically without any meaning other than that of the verb itself. In Bantu languages INFINITIVES can often have nominal prefixes, be inflected, carry extensions and include aspectual suffixes and are often referred to as verbal nouns, which is the case in siSwati.

Modality	<p>For some authors modality is synonymous with mood but an alternative view is that mood covers INDICATIVE, SUBJUNCTIVE, (OPTATIVE) and IMPERATIVE while modality refers to ability, <u>conditional</u>, desire, intention, <u>itive</u>, obligation, permission, probability, possibility and <u>ventive</u>. With the exception of those underlined the categories tend not to be expressed inflectionally in Bantu. OPTATIVE is in parentheses as it is a term expressing a ‘realizable wish’ and attested in very few languages and no Bantu language (Trask, 1997: 157).</p>
Mood	<p>A small set of morpho-semantic-syntactic categories indicating speaker attitudes concerning status or factuality of the utterance. Semantically, SUBJUNCTIVE often represents uncertainty, obligation, probability and non-factuality; IMPERATIVE suggests a course of action to be followed and INDICATIVE represents a situation the speaker believes to be true. Most Bantu languages have a binary morphological contrast between final <i>-a</i> marking INDICATIVE and final <i>-e</i> marking SUBJUNCTIVE. The IMPERATIVE takes final <i>-a</i>. A first command is IMPERATIVE, but second or subsequent commands are second person SUBJUNCTIVE (Ziervogel and Mabuza, 1976: 170).</p>
PARTICIPIAL	<p>In Bantu languages the PARTICIPIAL constructions typically appear as finite forms having the nature or function of a participle, indicating concomitant state, situation or action (Doke, 1935: 160). Verbal constructions that express an event in which tense is not represented but which depend on the tense in the main verb are also described as relative tenses (Rose et al., 2002: 74). In the South African tradition it is also called SITUATIVE (Taljaard et al., 1991: 124, Doke, 1935). In view of the various positions described and as this analysis is concerned with siSwati, a south African Bantu language, I follow Doke and refer to the PARTICIPIAL as a mood.</p>

PAST	The PAST tense in the siSwati TAM system represents Event time which occurs before Reference time which may or may not be Speech time.
PERFECT	Also called the ANTERIOR and refers to a past action with current relevance.
PERFECTIVE	Contrasts with IMPERFECTIVE and refers to a specific aspectual category which describes the subject as being at the end of a completed event, bounded temporally and independent of other situations. Also used in a completive sense to refer to a bounded event. Most PERFECTIVES refer to past situations but PERFECT can be regarded as outside the boundary of a past event whereas PERFECTIVE is within the boundary at the end-point. The following diagram illustrates the arrangement (Rose et al., 2002: 63):

[< boundary of event >]
 |-----X-----Y|Z

- (2.1) X *Be-ngi-phek-a*
 PAST-SC1sg-cook-FV
 'I was cooking' (IMPERFECTIVE)
- (2.2) Y *Nga-phek-a*
 REM.PAST.SC1sg-cook-FV
 'I cooked' (PERFECTIVE)
- (2.3) Z *Ngi-phek-ile*
 SC1sg-cook-DIS.PERF
 'I have cooked' (PERFECT)

PERSISTIVE	A morpheme or several morphemes describing an event that 'persists from a non-present time (i.e. past) to the present, and is likely to extend to the future' (Muzale, 1998). The notion expressed is commonly grammaticalized as a TAM marker or lexicalized as in Swahili (<i>bado</i> 'still'). The term is sometimes used interchangeably
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(2.4) *Ngi-ta-be* *ngi-sa-tawu-nats-a*
 SC1sg-IMM.FUT-*be*-FV SC1sg-PERS-IMM.FUT-*drink*-FV
 ‘I will still be about to drink’
 (Ziervogel and Mabuza, 1976: 105)

POTENTIAL	Also called the CONDITIONAL mood and often associated with morpheme <i>-nga-</i> which is the case in siSwati.
PROGRESSIVE	PROGRESSIVE aspect describes an event as on-going at Reference time during a single time period which I classify as synonymous with CONTINUOUS. It is an assertion of this analysis that this aspect is not grammaticalized in siSwati.
Reference time	One of three time points in Reichenbach's Triple time system (SER). The time point used as the point of Reference is given by the context of speech (Reichenbach, 1947: 288). Its relationship to Speech time and Event time will vary with tense. Aspect can be represented as the interaction between Reference and Event time (Evans and Green, 2006: 388).
Relative tense	When used of tenses, relative can be used to refer to the ordering of one event relative to another (before, after or simultaneous) and 'where the reference point for location of a situation is some point in

time given by the context, not necessarily the present moment’ (Comrie, 1985: 56).

REMOTE	Relative temporal proximity covering periods beyond yesterday, today or tomorrow, but certainty, spatial proximity and intentionality are also significant for remote meaning.
Speech time	One of three time points in Reichenbach’s Triple time system (SER), Speech time is the present, the moment of utterance and the deictic centre. An absolute tense has as its deictic centre the present moment or Speech time, but a relative tense has a reference point for location of a situation at some point in time other than the present. ‘The tenses determine time with reference to the time point of the act of speech...’ (Reichenbach, 1947: 288).
Stative	In traditional grammars, this term is used in grammatical classifications of verbal aspect where it refers to a broad category of verbs contrasting with dynamic. Semantically these verbs express ‘states of affairs’ rather than actions.
Tense	Tense is a deictic category that locates an event in time (past, present, future) usually with reference to the present (which is the default case) though also with reference to other situations (Comrie, 1976: 5).

2.2 Morpho-syntactic overview of siSwati

This overview focuses on issues with which this thesis is concerned, but for the examples and data presented to be more meaningful I have described features of siSwati morphology and syntax other than those directly relevant to an analysis of tense and aspect in the siSwati verb form. There are three primary sources in the literature, two descriptive grammars and a dictionary, *A Grammar of the Swati Language* (Ziervogel and Mabuza, 1976), *Handbook of siSwati* (Taljaard et al., 1991) and *Concise siSwati Dictionary*

(Rycroft, 1981). In the main text I abbreviate Ziervogel and Mabuza which is my primary source as Z&M. The overview draws extensively on these sources as well as data collected during my fieldwork and more contemporary work. Twentieth century Bantu studies generated two sets of terminology which can be called the Tervuren Group and the South African Group deriving largely from the work of Doke on isiZulu (S42 in Guthrie's classification), a closely related language to siSwati (Doke, 1947, Guthrie, 1967-71). Nurse does not rely on terminology from either group but from current terms and labels which reflect linguistic advances in phonology, morphology and syntax (Nurse, 2008: 20) and I adhere as closely as possible to contemporary terminology.

2.2.1 Noun classes and agreement

SiSwati nouns belong to various classes, most of which are paired into singular and plural. For example noun classes 1 and 2 are: *umu-ntfu* ('a person') and *ba-ntfu* ('people').⁴ The following summary is based on Rycroft (1981: xvi) and noun classes are numbered following the conventional Bantu system:

Class	SiSwati	Translation
1/2	<i>umú-ntfu/bá-ntfu</i>	person/people
1a/2a	<i>thishela/bo-thíshela</i>	teacher/teachers
	<i>ú-nina/bó-nina</i>	their mother/their mothers
3/4	<i>úmu-khwá/imi-khwá</i>	knife/knives
	<i>úm-fula/imí-fula</i>	river/rivers
5/6	<i>lí-tje/emá-tje</i>	stone/stones
7/8	<i>sí-tja/tí-tja</i>	dish/dishes
9/10	<i>în-tfó/tîn-tfó</i>	thing/things
	<i>îm-vú/tîm-vú</i>	sheep
11/10	<i>lù-tsí/tîn-tsí</i>	stick/sticks

⁴ In the standard siSwati orthography *c* represents a dental click consonant, but *x* also appears in foreign words (mainly isiZulu and Xhosa) and is a lateral click consonant. Also *th* is an aspirated voiceless alveolar plosive, as in English 'toe', *ph* is an aspirated voiceless bilabial plosive, as in English 'pay' and *bh* is a post-breathy-voiced bilabial plosive as in English 'up**bra**id' (Rycroft, 1981: xi – xv). Otherwise the International Phonetic Alphabet applies.

14	<i>bú-hlùngu</i>	pain
	<i>b-ôyá</i>	wool
	<i>tj-âní</i>	grass
15	<i>kû-dlá</i>	to eat/food
(16)	<i>phánsi</i>	down, under
(17)	<i>kú-dvúte</i>	nearby
(18)	<i>mushíya ló</i>	on this side

The *ku-* prefix can either mark noun class 15 as in *ku-dla* ('food') or noun class 17 as in *ku-dvute* ('nearby'). The INFINITIVE prefix can take one of three forms depending on phonological environment; *ku-* (*ku-nats-a*, 'to drink'), *kw-* (*kw-ab-a*, 'to share out') or *k-* (*k-os-a*, 'to roast') (Rycroft, 1981: ix). Noun classes 9/10 and 14 also have variations dependent on phonological environment as shown in the list above.

In addition to class 17 there are two other adverbial/locative noun classes in siSwati, class 16 *pha-* as in *phansi* ('down') and class 18 *mu-* as in *mushiya lo* ('on this side'). Rycroft describes their role as adverbial and Z&M classify them as locative classes whose roles are now mainly adverbial (Ziervogel and Mabuza, 1976: 27).

Locative nouns can also be formed as in *e-dladl-eni* ('in/at/to the kitchen'), from *li-dladla* ('kitchen') with a prefix *e-* and a suffix *-eni*. Where the noun class prefix is dropped in locative constructions I indicate the original class by including the noun class number in the glosses. It is generally noun class 5 which drops the prefix in this environment and *e-khaya* ('at home') is another example, and one of a number of nouns which omit the suffix. Many have no non-locative counterpart such as *embili* ('in front') (Ziervogel and Mabuza, 1976: 36).

- (2.5) *Ngi-hlal-a e-si-tul-w-eni*
 SC1sg-sit-FV LOC-7-stool-PLC-LOC
 'I am sitting on the stool'

Prefixal agreement is fundamental in siSwati and verbs as well as adjectives and other parts of speech occurring with a particular noun must adopt a concord prefix (Rycroft, 1981: xvii):

- (2.6) *Um-ntfwana lom-ncane u-ya-khal-a*
 1-child AC1-small SC1-DIS.PRES-cry-FV
 ‘The small child is crying’⁵

- (2.7) *Ba-ntfwana laba-ncane ba-ya-khal-a*
 2-children AC2-small SC2-DIS.PRES-cry-FV
 ‘The small children are crying’

The subject whether substantive or not must be represented by a subject concord which is prefixed to the verb or to a non-verbal copula construction. Concordial agreement must be in class, person and number and in siSwati the subject concord performs a pronominal function and absolute pronouns can be added for emphasis (Rycroft, 1981: xvii):

- (2.8) *Ngi-ya-hamb-a*
 SC1sg-DIS.PRES-go-FV
 ‘I am going’

- (2.9) *Mine ngi-ya-hamb-a*
 AP1sg SC1sg-DIS.PRES-go-FV
 ‘I am going’ (i.e. it is me, not someone else)

2.2.2 The siSwati verb

The basic root structure is -CVC- as in the verb *ku-nats-a* (‘to drink’).

- (2.10) *Ngi-ya-nats-a*
 SC1sg-DIS.PRES-drink-FV
 ‘I am drinking’

The other root structures are -C-, -VC-, -VCVC- and -CVCVC- and a small number of verbs that have a latent initial -i- which changes any preceding vowel from -a- to -e- including *ku-b-a* (‘to steal’), *ku-mb-a* (‘to dig’), *ku-m-a* (‘to stand, stop’), *ku-v-a* (‘to hear’) and *ku-t-a* (‘to come’) (Rycroft, 1981: xxii):

- (2.11) *Ngi-ye-t-a*
 SC1sg-DIS.PRES-come-FV
 ‘I am coming’

⁵ This siSwati expression can also mean ‘The small child cries’ and so in siSwati the sense is not necessarily PROGRESSIVE. In siSwati the PROGRESSIVE aspect is not morphologically encoded and this applies across the entire range of tenses and moods. In the examples which follow I will give one translation only unless it is germane to my argument to give both.

The disjoint PRESENT marker *-ya-* becomes /*ye/* when followed by a verb with latent *-i-* such as *ku-t-a* ('to come'). SiSwati verbs are of two tonal types for each type of stem and vary tonally according to tense. Both examples are INFINITIVE disyllabic stems based on -CVC- roots. The lexical H tone appears on the verb stem for High verbs:

- (2.12) *kú-lim-a*
 15-plough-FV
 'To plough' (Low tone)

- (2.13) *kú-bón-a*
 15-see-FV
 'To see' (High tone)

For -C- verbs the H tone appears on the final vowel and the tone on the INFINITIVE prefix is falling with a High -C- verb (Rycroft, 1979).

- (2.14) *kú-y-a*
 15-go-FV
 'To go' (Low tone)

- (2.15) *kû-f-á*
 15-die-FV
 'To die' (High tone)

2.2.3 Tense, Aspect and Mood morphology

TAM morphology and semantics are at the heart of the analysis presented in this thesis and before describing the siSwati system in the second of two sub-sections, I first introduce the subject more generally.

2.2.3.1 TAM systems – a general overview

Definitions of TAM system components are difficult, so I describe the key characteristics of tense, aspect and mood starting with tense, which is the grammatical category relating to time. The idea of locating situations in time is a conceptual notion and independent of the range of distinctions made cross-linguistically so languages differ in the accuracy of time location and the degree to which it is done lexically or morphologically (Comrie, 1985: 7).

Comrie claims tense is the grammaticalized expression of location of time, so tense distinguishes the following three expressions:

- | | | | |
|--------|---------------------|-----------------------|---------|
| (2.16) | <i>Peter</i> | <i>be-ka-gijim-a</i> | |
| | 1a. <i>Peter</i> | PAST-SC1-run-FV | |
| | 'Peter was running' | | PAST |
| | | | |
| (2.17) | <i>Peter</i> | <i>u-ya-gijim-a</i> | |
| | 1a. <i>Peter</i> | SC1-DIS.PRES-run-FV | |
| | 'Peter runs' | | PRESENT |
| | | | |
| (2.18) | <i>Peter</i> | <i>u-tawu-gijim-a</i> | |
| | 1a. <i>Peter</i> | SC1-IMM.FUT-run-FV | |
| | 'Peter will run' | | FUTURE |

Whereas aspect distinguishes the next three expressions (Comrie, 1985: 9):

- | | | | |
|--------|---------------------------|----------------------|--------------|
| (2.19) | <i>Peter</i> | <i>be-ka-gijim-a</i> | |
| | 1a. <i>Peter</i> | PAST-SC1-run-FV | |
| | 'Peter was running' | | IMPERFECTIVE |
| | | | |
| (2.20) | <i>Peter</i> | <i>u-gijim-ile</i> | |
| | 1a. <i>Peter</i> | SC1-run-DIS.PERF | |
| | 'Peter has run/Peter ran' | | PERFECT |
| | | | |
| (2.21) | <i>Peter</i> | <i>wa-gijim-a</i> | |
| | 1a. <i>Peter</i> | REM.PAST.SC1-run-FV | |
| | 'Peter ran' | | PERFECTIVE |

The notions most commonly grammaticalized across languages are anteriority, simultaneity and posteriority, with the present as deictic centre (Comrie, 1985: 11). Tense is deictic whereas aspect is not, so in the speech situation, *here* and *now* are taken as the deictic centre. In terms of person this defines the first person as speaker and the second person as hearer with everything else as third person (Comrie, 1985: 14). *Here* is where the speech took place and *there* is everywhere else and the temporal deictic centre is the same for speaker and hearer (Comrie, 1985: 16). Languages are capable of expressing limitless distinctions of time lexically, but it is possible to build time distinctions into the grammar, and a language which does so has the category tense. In most tense languages, tense is marked on verbs, but there are exceptions. Some languages lack tense entirely (Chinese),

whilst others distinguish only two tenses (English has a PAST and non-PAST), and yet others have three, four, five or more; Bamileke-Dschang distinguishes eleven tenses (Trask, 1999: 311, Hyman, 1980).⁶ Gevove (B305) has four PAST, three PRESENT (GENERIC, HABITUAL and PROGRESSIVE) and two FUTURE tenses (Mickala-Manfoumbi, 1994, Botne, 2006, Guthrie, 1967-71). Aspect can best be understood by distinguishing between the three terms, PERFECT, PERFECTIVE and IMPERFECTIVE. In the following example in English, the first verb is IMPERFECTIVE and the second PERFECTIVE:

(2.22) Wazi was reading when I entered.

In this sentence, the first verb makes explicit reference to the internal temporal constituency of the situation and while there is no explicit reference to the beginning or end of Wazi's reading, it preceded and followed the speaker's entry. This verbal form is IMPERFECTIVE and is viewed from inside (Comrie, 1976: 4). The second verb does not present the situation this way but presents the totality of the situation without reference to its internal temporal constituency and is looked at from outside the situation. The whole of the situation is presented as a single unanalyzable whole, with beginning, middle and end rolled into one and no attempt is made to divide it up into various individual phases which make up the action of entry. This verbal form has PERFECTIVE meaning and aspect (Comrie, 1976: 3). The PERFECT is often confused with the PERFECTIVE but is quite different as the following examples illustrate:

(2.23) <i>Ngi-lahl-ek-el-w-e</i> SC1sg-lost-NEUT-APP-PASS-FV 'I have lost my pen-knife'	<i>ne-li-gotjwa</i> ADV.PFX-5-pen-knife	<i>l-ami</i> PC5-PS1sg
---	--	---------------------------

(2.24) <i>Be-ngi-li-lahl-ek-el-w-a</i> PAST-SC1sg-OC5-lost-NEUT-APP-PASS-FV 'I lost my pen-knife'	<i>ne-li-gotjwa</i> ADV.PFX-5-pen-knife	<i>l-ami</i> PC5-PS1sg
---	--	---------------------------

The PERFECT describes a past event that has current relevance (2.23) so with the PERFECT there is an implication that the pen-knife is still lost but there is no such implication with the non-PERFECT (2.24). The PERFECT also differs from other aspects in that it expresses a

⁶ Bamileke-Dschang is part of a language dialect cluster belonging to an Eastern Grassfields Bantu language group spoken in Cameroon and is also known as Yemba.

relation between two time-points (Comrie, 1976: 52). Aspect therefore is the grammatical category representing distinctions in the temporal structure of an event. Like the PERFECT, the PERSISTIVE and ALTERATIVE aspects link two separate time-points.

Aktionsart refers to aspect expressed lexically rather than grammatically (Trask, 1999: 23):

(2.25) *Li-gundvwane li-dl-e kancane chizi*
 5-mouse SC5-eat-FV ADV.small 1a.cheese
 ‘The mouse nibbled the cheese’

(2.26) *Lo-m-fana u-li-muny-ile leli-swidi*
 DP1-1-boy SC1-OC5-suck-DIS.PERF DP5-sweet
 ‘The boy sucked the sweet’

(2.27) *Leli-bhubesi li-dl-e la-yi-bhubhis-a le-mphala*
 DP5-lion SC5-eat-FV REM.PAST.SC5-OC9-kill-FV DP9-impala
 ‘The lion devoured the impala’

The syntax of each English sentence is the same and only the lexical components (subject, verb and object) have been changed. The verb in each sentence describes the manner of eating and PAST tense is encoded by the inflection on the verb but the lexical choice of verb performs an aspectual role by describing the internal structure of the temporal event and in siSwati a similar process takes place.

Nurse states that tenses and aspects have meanings which are independent of context and are established by their status in the system. A TAM system is in a constant state of change and there is variation in all systems, such as interaction between different parts of the system so for example grammatical meaning and lexical meaning, *Aktionsart* lead to different TA forms behaving differently when used with stative versus dynamic verbs. Systems have strong and weak points and not all change is systemic but can result from speaker behaviour (Nurse, 2008: 13/4).

Nurse refers to isiZulu and states that a language may have one absolute ANTERIOR tense, as Swahili (G40), Zulu (S42) or Northern Sotho (S32) (Nurse, 2008: 161, Guthrie, 1967-71) and that an absolute ANTERIOR is a tense where the reference point for the location of a situation in time is the present. A relative ANTERIOR is a tense in which the reference point

is governed by context and not necessarily the present (Comrie, 1985: 86). An absolute ANTERIOR is the PERFECT ('I have done') and a relative ANTERIOR is the PLUPERFECT or FUTURE PERFECT ('I had done/I will have done'). Languages can distinguish absolute and relative ANTERIORS either analytically or morphologically and my fieldwork data and the standard grammars confirm that siSwati has morphologically encoded PERFECT, PLUPERFECT and FUTURE PERFECT forms. The verb ending for the siSwati PERFECT is *-ile* (disjoint) and *-e* (conjoint) (see sections 2.2.3.2 and 2.3.1 for explanation of these terms) and the PLUPERFECT and FUTURE PERFECT are constructed using the PERFECT form together with various PAST and FUTURE markers, including *be-*. Nurse states that the PERFECT forms combine tense and anterior synthetically as inflection. The PLUPERFECT is morphologically encoded in siSwati by a PERFECT marker together with either *nga-* (PAST tense concord) or *be-* with tone significant in marking remote or immediate temporal proximity. The FUTURE PERFECT is formed in a similar way by constructing a compound verbal form using remote or immediate FUTURE markers with a PERFECT marker. The main source grammar provides the following examples (Ziervogel and Mabuza, 1976: 100-102):

- (2.28) *Ngi-gijim-ile*
 SC1sg-*run*-DIS.PERF
 'I have run' PERFECT or ANTERIOR
- (2.29) *Nga-ngi-gijim-ile*
 REM.PAST.SC1sg-SC1sg-*run*-DIS.PERF
 'I had run' PLUPERFECT
- (2.30) *Ngi-ta-b-e* *ngi-gijim-ile*
 SC1sg-IMM.FUT-*be*-FV SC1sg-*run*-DIS.PERF
 'I will have run' FUTURE PERFECT

Mood is the grammatical category expressing the degree or kind of reality attached to an utterance. Mood is not well-developed as a grammatical category in English, and so mood distinctions tend to be expressed lexically. The INTERROGATIVE and IMPERATIVE express moods and in other languages there are elaborate distinctions of mood built into the grammar and frequently expressed either by variation in verb-forms or by particles. Mood shades off imperceptibly into modality (Trask, 1999: 191) which is the grammatical category associated with the expression of obligation, permission, prohibition, necessity, possibility and ability.

2.2.3.2 TAM systems – a siSwati overview

This section describes the re-analysis of the siSwati TAM system which was necessary in order to accommodate both the PERSISTIVE and ALTERATIVE aspects which are the subject of this study. SiSwati is an agglutinating language and I describe the verbal template comprised of slots into which the individual morphemes of the verb form are allocated. I give a brief description of the constituent morphemes and this is followed by a morpho-semantic review of PAST, PRESENT and FUTURE tenses, both simple and compound which includes a comprehensive profile of the variant future forms.

In the two standard grammars and dictionary of siSwati and the isiZulu grammar there is an aspect (called ‘implication’ by Doke and Rycroft) which is labelled EXCLUSIVE (Ziervogel and Mabuza, 1976: 188, Doke, 1947: 179, Taljaard et al., 1991: 152, Rycroft, 1981: 85). I do not include this term in my analysis but it has the meaning of ‘already’ and ‘not yet’ in the positive and negative respectively. Table 2.1 reflects an analysis which includes this term and essentially originates from Doke but is an amalgam of the sources referred to above:

	POSITIVE	NEGATIVE
BASIC	<i>ngi-(ya)-phek-a</i> SC1sg-(DIS.PRES)-cook-FV ‘I cook’ (‘I am cooking’)	<i>a-ngi-phek-i</i> NEG-SC1sg-cook-NEG.FV ‘I do not cook’
PROGRESSIVE	<i>ngi-sa-phek-a</i> SC1sg-PROG-cook-FV ‘I still cook’	<i>a-ngi-sa-phek-i</i> NEG-SC1sg-PROG-cook-NEG.FV ‘I no longer cook’
EXCLUSIVE	<i>se-ngi-(ya)-phek-a</i> EXC-SC1sg-(DIS.PRES)-cook-FV ‘I now/then/already/cook’	<i>ngi-se-nga-ka-phek-i</i> SC1sg-EXC-NEG-PERF-cook-NEG.FV ‘I do not yet cook’

Table 2.1 BASIC, PROGRESSIVE and EXCLUSIVE aspects in siSwati (positive and negative)

Table 2.1 is problematic and I have glossed and translated the expressions to conform to the source classifications (i.e. *-se-* is glossed as EXCLUSIVE and *-sa-* as PROGRESSIVE) in order to highlight the need for re-analysis. Firstly, the PERSISTIVE aspect marker is labelled PROGRESSIVE, but my position is that the PROGRESSIVE is not grammaticalized and that

-sa- encodes PERSISTIVE aspect. Secondly, the disjoint PRESENT (see BASIC positive in table 2.1 where the disjoint PRESENT marker *-ya-* is in parentheses and abbreviated as DIS.PRES) does not encode PROGRESSIVE. Thirdly, my position regarding the negative *a-ngi-sa-phek-i* ('I no longer cook'), which I classify as negative ALTERATIVE if context shows that the ALTERATIVE marker *-se-* has become *-sa-* for phonological reasons, is that this form can also be the negative PERSISTIVE ('I still do not cook') with *-sa-* undergoing no change. Fourthly, the positive antonym for negative PROGRESSIVE (my ALTERATIVE) *a-ngi-sa-phek-i* ('I no longer cook') is *se-ngi-ya-phek-a* ('I now cook') which means there is no positive antonym in the table for negative EXCLUSIVE *ngi-se-nga-ka-phek-i* ('I do not yet cook'). To summarize, these forms, labelled and translated as they have been, when represented in such a tabular analysis, result in a taxonomy that is incomplete, inconsistent and contradictory. My interview program followed this taxonomy and the research results revealed its shortcomings. Merely changing the labels provided no solution but eliminating the EXCLUSIVE as a discrete aspect in siSwati and re-classifying the PROGRESSIVE as PERSISTIVE produced an improvement shown as Table 2.2:

	POSITIVE	NEGATIVE
BASIC	<i>ngi-(ya)-phek-a</i> SC1sg-(DIS.PRES)-cook-FV 'I cook/I am cooking'	<i>a-ngi-phek-i</i> NEG-SC1sg-cook-NEG.FV 'I do not cook/I am not cooking'
PERSISTIVE	<i>ngi-sa-phek-a</i> SC1sg-PERS-cook-FV 'I still cook'	<i>a-ngi-sa-phek-i</i> NEG-SC1sg-PERS-cook-NEG.FV 'I still do not cook'
ALTERATIVE	<i>se-ngi-(ya)-phek-a</i> ALT-SC1sg-(DIS.PRES)-cook-FV 'I now/already/then cook'	<i>ngi-se-nga-ka-phek-i</i> SC1sg-ALT-NEG-PERF-cook-NEG.FV 'I do not yet cook'

Table 2.2 BASIC, PERSISTIVE and ALTERATIVE aspects in siSwati (positive and negative)

Table 2.2 is still problematic as the negative PERSISTIVE *a-ngi-sa-phek-i* in my analysis is ambiguous and translates as 'I still do not cook' or 'I no longer cook' (negative ALTERATIVE) when *-se-* becomes *-sa-* phonologically in TAM slot four of the verbal template. So to overcome these problems I have included Exclusivity as a sub-sense of the ALTERATIVE which appears in the final version of this analytical process as Table 2.3:

	POSITIVE	NEGATIVE
BASIC	<i>ngi-(ya)-phek-a</i> SC1sg-(DIS.PRES)-cook-FV 'I cook/I am cooking'	<i>a-ngi-phek-i</i> NEG-SC1sg-cook-NEG.FV 'I do not cook/I am not cooking'
PERSISTIVE	<i>ngi-sa-phek-a</i> SC1sg-PERS-cook-FV 'I still cook'	<i>a-ngi-sa-phek-i</i> NEG-SC1sg-PERS-cook-NEG.FV 'I still do not cook'
ALTERATIVE Main sense	<i>se-ngi-(ya)-phek-a</i> ALT-SC1sg-(DIS.PRES)-cook-FV 'I now/then/just cook'	<i>a-ngi-sa-phek-i</i> NEG-SC1sg-ALT-cook-NEG.FV 'I no longer cook'
ALTERATIVE Exclusivity sub-sense	<i>se-ngi-(ya)-phek-a</i> ALT-SC1sg-(DIS.PRES)-cook-FV 'I already cook'	<i>ngi-se-nga-ka-phek-i</i> SC1sg-ALT-NEG-PERF-cook-NEG.FV 'I do not yet cook'

Table 2.3 BASIC, PERSISTIVE, ALTERATIVE and Exclusivity aspects in siSwati (positive and negative)

The analysis underlying the forms described in Table 2.3 will be discussed in detail in chapters four and five.

SiSwati is an agglutinating language and the verb form has a series of slots for TAM markers typical for Bantu languages (Meeussen, 1967):

- (2.31) *(k)a-ngi-sa-m-bon-is-anga*
 NEG-SC1sg-PERS-OC1-see-CAUS-REM.PAST.NEG
 'I did not show him'

The morphemes of this expression slot into the template:

Initial	Subject	Negative	Tense/aspect	Object	Root	Extension	Final	Suffix
1	2	3	4	5	6	7	8	9
<i>(k)a</i>	<i>ngi</i>		<i>sa</i>	<i>m</i>	<i>bon</i>	<i>is</i>	<i>a</i>	<i>nga</i>

The initial slot is filled by the negative marker *(k)a-* and the *(k)* in parentheses is rarely encountered in modern speech. The subject marker *-ngi-* occupies slot two and the aspectual marker is the PERSISTIVE *-sa-* which occupies slot four. The object concord is noun class 1 *-m-* and the root is *-CVC-* which encodes the verb's meaning *-bon-* ('see') and they occupy slots five and six respectively. The extension is CAUSATIVE which occupies slot seven and has the sense of 'causing to do' so the root sense becomes 'show' (i.e. 'cause

to see’). The final vowel is *-a-* and the suffix is the negative REMOTE PAST tense marker *-nga* so there are two negative morphemes employed but slot three has not been filled. This pattern is typical in Bantu and Nurse refers to the negative marker in the initial slot as the primary negative and the marker appearing after the subject concord (slot three) as the secondary negative (Nurse, 2008: 23).

- (2.32) *Be-ngi-nga-nats-i*
 PAST-SC1sg-NEG-*drink*-NEG.FV
 ‘I was not drinking’

Example (2.32) illustrates the internal, secondary negative (slot three) and the initial slot is occupied by the tense/aspect marker *be-* which encodes PAST tense and IMPERFECTIVE aspect so slots one and four can be occupied by a tense/aspect marker.

Extensions are derivational suffixes like CAUSATIVE or APPLICATIVE which change the meaning and/or valency of the base verb and there are many productive extensions with a variety of meanings (Ziervogel and Mabuza, 1976: 73):

- | | | | | |
|--------|-----|--------------------|----------------------------|-------------|
| (2.33) | (a) | <i>ku-bon-a</i> | ‘to see’ | |
| | (b) | <i>ku-bon-is-a</i> | ‘to show’ | CAUSATIVE |
| | (c) | <i>ku-bon-el-a</i> | ‘to see for, take care of’ | APPLICATIVE |

The CAUSATIVE construction has the sense of ‘make someone do something’ so ‘show’ has the sense of ‘make someone see’. The APPLICATIVE gives a ‘prepositional’ concept to the verb and increases the valency by one argument.

The final slot eight can be filled by one of five inflectional morphemes related to TAM and polarity:

- a* appears in the non-SUBJUNCTIVE forms and is generally positive but can be negative.
- è* is the SUBJUNCTIVE suffix (L tone).
- i* is the suffix of the negative conjugation in many tenses.

The above endings according to this categorization do not encode tense although the PERFECT tense endings do:

-é is the conjoint PERFECT suffix (H tone).

-ile is the suffix of the disjoint PERFECT (*-iwe* in the PASSIVE).

In siSwati as in many Bantu languages there are conjoint and disjoint forms in certain tenses and the following two examples illustrate the disjoint (long) and conjoint (short) PRESENT. The morpheme *-ya-* occupies TAM slot four but has no semantic effect and appears to have grammaticalized from the motion verb *ku-y-a* ('to go').⁷

(2.34) *U-ya-nats-a* (disjoint form)
 SC2sg-DIS.PRES-*drink*-FV
 'You are drinking'

(2.35) *U-nats-a* *li-tiya* (conjoint form)
 SC2sg-*drink*-FV *5-tea*
 'You are drinking tea'

The conjoint PRESENT in siSwati is not marked for tense as the final *-a* is positive non-SUBJUNCTIVE, the verb stem *-nats-* encodes the lexical meaning ('drink') and the subject concord encodes person and number (2sg) so tense is unmarked in (2.35) and PRESENT is the default tense. There are a number of syntactic rules (Ziervogel and Mabuza, 1976: 174/5) which determine the use of the conjoint or disjoint form, one of which is the presence of a complement and Rycroft states that the conjoint form is never used when utterance-final (Rycroft, 1981: xxvi).

(2.36) *Ngi-ya-hlal-a*
 SC1sg-DIS.PRES-*sit*-FV
 'I am sitting'

(2.37) *Ngi-hlal-a* *e-si-tul-w-eni*
 SC1sg-*sit*-FV LOC-7-*stool*-PLC-LOC
 'I am sitting on the stool'

⁷ With the INFINITIVE prefix *ku-* it forms the REMOTE FUTURE marker *-yaku-*. The standard grammars do not refer to the origins of the disjoint formative *-ya-*. Nurse describes several other Bantu languages with disjoint formatives which appear to take the form *-Ca-* or *-a-* alone (Nurse, 2008: 205).

The rules regarding complements and the use of the conjoint or disjoint form are flexible:

- (2.38) *U-ya-ti-tsats-a*⁸ *tim-phahla* *t-akhe*
 SC1-DIS.PRES-OC10-take-FV 10-possessions PC10-PS1
- a-nik-e* *um-ntfwana*
 SC1-give-FV 1-child

‘She takes her possessions and gives them to the child’

In (2.38) the presence of the object concord requires the disjoint form and where a complement appears with the disjoint PRESENT the predicate is emphasized (2.39) (Ziervogel and Mabuza, 1976: 175):

- (2.39) *U-ya-khulum-a* *ne-si-hambi*
 SC1-DIS.PRES-speak-FV ADV.PFX-7-traveller
 ‘He is **speaking with the traveller**’

The following examples illustrate the morphology of the PERFECT or ANTERIOR which Rycroft describes as IMMEDIATE PAST and this hybrid form encodes aspect (PERFECT) and tense (IMMEDIATE PAST) (Rycroft, 1981: xxvi). The first example (2.40) illustrates that the disjoint PERFECT form of the verb *ku-nats-a* (‘to drink’) encodes either a dynamic sense (IMMEDIATE PAST) or STATIVE PERFECT which has PRESENT tense as a result of tense shift (see section 4.8). The conjoint form with a complement precludes the stative:

- (2.40) *U-nats-ile*
 SC2sg-drink-DIS.PERF/STAT.PERF
 ‘You have been drinking’
 ‘You are drunk’⁹
- (2.41) *U-nats-e* *li-tiya*
 SC2sg-drink-CON.PERF 5-tea
 ‘You have been drinking tea’

The syntactic and semantic rules governing conjoint or disjoint forms in both PERFECT and PRESENT tenses are discussed further in section 2.3.1.

⁸ Class 1 subject markers can equally well be masculine or feminine so I generally use the masculine as default gender throughout this thesis when the gender is unknown or not germane to the discussion.

⁹ The PASSIVE STAT.PERF expression *u-dzak-iwe* also means ‘you are drunk’ but is impolite and would not normally be used.

The REMOTE PAST is marked by the PAST tense concord in the positive which is derived from the subject concord (SC) and the PAST tense *-a* which becomes a single syllable (Ziervogel and Mabuza, 1976: 98). Vowel coalescence results in the loss of the vowel of the SC.

(2.42) (a) *ngi-* + *-a-* > *nga-*

(b) *u-* + *-a* > *wa-* etc.

Nurse in his appendix for isiZulu describes the corresponding tense in isiZulu as P2 and PERFECTIVE (Nurse, 2008: Appendix isiZulu S42). In siSwati it is the REMOTE PAST tense and describes a bounded event that was completed at an anterior time so is classified as PERFECTIVE.

(2.43) *Nga-nats-a*
 REM.PAST.SC1sg-*drink*-FV
 ‘I drank’

The REMOTE PAST is marked by *-anga* in the negative (Ziervogel and Mabuza, 1976: 84).

(2.44) *A-ngi-nats-anga*
 NEG-SC1sg-*drink*-REM.PAST.NEG
 ‘I did not drink’

The REMOTE PAST negative marker *-anga* can be morphologically analysed as either one or two morphemes. In (2.44) I have glossed as a single morpheme although Nurse glosses as two for isiZulu (Nurse, 2008: Appendix isiZulu S42). I have followed the former practice but consider that as it is constructed from a FV (*-a-*) and a negative marker (*-nga-*) the latter is also correct.

Example (2.45) illustrates the morphology of the IMMEDIATE FUTURE and (2.46) the REMOTE FUTURE. The derivation of the FUTURE markers is discussed in section 9.3.1.

(2.45) *U-tawu/taku-nats-a*
 SC2sg-IMM.FUT-*drink*-FV
 ‘You will be drinking’

- (2.46) *U-yawu/yaku-nats-a*
 SC2sg-REM.FUT-*drink*-FV
 ‘You will be drinking’

Nyembezi makes a similar assertion to that made in reference to siSwati (Ziervogel and Mabuza, 1976: 172) regarding the flexible nature of isiZulu tenses (Nyembezi, 1970). Discussing the simple FUTURE tense he states that *-zo-* and *-yo-* (*-zu-* and *-yu-* in the negative) are used when the speaker considers the situation either immediate or remote (Nyembezi, 1957) which produces contradictory expressions in that either marker can be used with the same temporal adverb:

- (2.47) *Ngi-zo-hamb-a* *namuhla* *ntambama*
 SC1sg-IMM.FUT-*travel*-FV ADV.*today* ADV.*afternoon*
 ‘I shall go today in the afternoon’

- (2.48) *Ngi-yo-hamb-a* *namuhla* *ntambama*
 SC1sg-REM.FUT-*travel*-FV ADV.*today* ADV.*afternoon*
 ‘I shall go today in the afternoon’

The adverbial *namuhla ntambama* (‘afternoon’) can be replaced in the same two sentences by *ku-sasa* (‘tomorrow’), *ngomhlomunye* (‘day after tomorrow’), *nge-sonto eli-za-yo* (‘next week’), *nge-n-yanga e-za-yo* (‘next month’), *ngo-nyaka o-za-yo* (‘next year’) (Nyembezi, 1957: 55). My fieldwork data have revealed that the immediate and remote distinctions of tenses in siSwati are not consistently indicative of temporal proximity but also certainty of outcome, spatial influences and speaker intentions (see also section 9.3.1).

- (2.49) *Ngi-sa-to-nats-a*¹⁰ *li-tiya*
 SC1sg-ALT-IMM.FUT-*drink*-FV 5-*tea*
 ‘I will now drink tea’
- (2.50) *Ngi-sa-yo-nats-a* *li-tiya*
 SC1sg-ALT-REM.FUT-*drink*-FV 5-*tea*
 ‘I will now drink tea’

In (2.49) the sense is that the tea is nearby and the speaker is going to drink it but in (2.50) the tea is elsewhere and the speaker must move in order to drink it. These markers can

¹⁰ In (2.49) and (2.50) *-sa-* is glossed as ALT not PERS and this phonological change is analysed in section 5.4.

encode both spatial circumstances and degree of certainty and these two examples illustrate that where the activity is taking place elsewhere and where there is a possibility that the tea is not at the other location, then *-yo-* is appropriate. IMMEDIATE and REMOTE FUTURE tenses are morphologically marked with a number of variant markers grammaticalized from the motion verbs *-ta* ('come') and *-ya* ('go') respectively, e.g. *-tawu-/taku-* in (2.45) and *-yawu-/yaku-* in (2.46) (Ziervogel and Mabuza, 1976: 98). The FUTURE markers consist historically of two morphemes but I analyse them as one in present-day siSwati. One or other of the verb stems of the two grammaticalized motion verbs *-ya* ('go') and *-ta* ('come') is used depending on whether remote or immediate tense is being encoded, and the INFINITIVE class 15 noun prefix (*-ku-*) or noun class 3 object concord (*-wu-*). When used with an object concord the INFINITIVE class 15 noun prefix *-ku-* is dropped (Ziervogel and Mabuza, 1976: 99):

- (2.51) *Ngi-ta-m-bon-a*
 SC1sg-IMM.FUT-OC1-see-FV
 'I shall see him'

The following list profiles positive and negative FUTURE tense variants (Rycroft, 1981, Ziervogel and Mabuza, 1976, Taljaard et al., 1991):

FUTURE

IMMEDIATE

- | | | | |
|--------|-----|-------------------------|---------------|
| (2.52) | (a) | <i>ngi-ta-ku-nats-a</i> | I shall drink |
| | (b) | <i>ngi-ta-nats-a</i> | I shall drink |
| | (c) | <i>ngi-to-ku-nats-a</i> | I shall drink |
| | (d) | <i>ngi-to-wu-nats-a</i> | I shall drink |
| | (e) | <i>ngi-to-nats-a</i> | I shall drink |
| | (f) | <i>ngi-ta-wu-nats-a</i> | I shall drink |

REMOTE

- | | | | |
|--------|-----|-------------------------|---------------|
| (2.53) | (a) | <i>ngi-ya-ku-nats-a</i> | I shall drink |
| | (b) | <i>ngi-yo-ku-nats-a</i> | I shall drink |
| | (c) | <i>ngi-yo-wu-nats-a</i> | I shall drink |
| | (d) | <i>ngi-yo-nats-a</i> | I shall drink |
| | (e) | <i>ngi-ya-wu-nats-a</i> | I shall drink |

FUTURE NEGATIVE

SIMPLE IMMEDIATE

- | | | | |
|--------|-----|---------------------------|-------------------|
| (2.54) | (a) | <i>a-ngi-na-ku-nats-a</i> | I shall not drink |
|--------|-----|---------------------------|-------------------|

- (b) *a-ngi-na-wu-nats-a* I shall not drink
 (c) *a-ngi-tu-ku-nats-a* I shall not drink
 (d) *a-ngi-te nga-nats-a* I shall not drink ¹¹

SIMPLE REMOTE

- (2.55) (a) *a-ngi-yu-ku-nats-a* I shall not drink
 (b) *a-ngi-yi ku-nats-a* I shall not drink

The choice of variant is speaker preference and reflects individual registers. The *-yo-* and *-to-* shortened variants are present in rapid speech and presumably derive from the full variants. There could be influence from other Nguni group languages, especially isiZulu and a possible historical analysis is as follows. At an initial stage, *-ya* and *-ta* were combined with inflected infinitival complements, initially with the class 15 INFINITIVE prefix *ku-* and at this stage, *-ya* and *-ta* functioned as auxiliaries but subsequently the forms were re-analysed as one inflected verb form with the bi-syllabic TAM marker (*-taku-*, *-yaku-*). Phonological reduction and analogical pressure towards canonical -CV- TAM markers, led to the weakening of the medial consonants (*-tawu-*, *-yawu-*), and with the loss of the consonants, to the forms *-yo-* and *-to-* through vowel coalescence of /a/ and /u/ resulting in /o/. Speakers claim that there is no difference in meaning between these many variants and this is reflected in the translations above but Nurse maintains that each discrete verbal tense and aspect form has a specific and unique range of meaning and collectively fits into a coherent system. Whilst there is some overlap of meaning, this cannot be total otherwise the form will naturally become redundant, so as Nurse predicts, if speakers who claim there is no semantic difference are right then these variants will enjoy a short linguistic life span (Nurse, 2008: 13), or they might diverge semantically.

The marker *be-* encodes PAST tense, both immediate (L tone) and remote (H tone) in compound tenses comprising an auxiliary and a lexical verb in the PARTICIPIAL mood (Nurse, 2008: 29).

¹¹ The variant (2.54) (d) is formed from the deficient verb/auxiliary *-te-* which is the PERFECT form of *-ta* ('come') (Ziervogel and Mabuza, 1976: 106). The unusual feature of this form is the PAST tense concord *nga-* in the SUBJUNCTIVE lexical verb which normally encodes REMOTE PAST. It seems inappropriate in an IMMEDIATE FUTURE form but the SUBJUNCTIVE is counter-factual and REMOTE tense markers encode non-reality as well as distal temporal proximity and this may be where the explanation lies.

- (2.56) *Be-ngí-náts-a*
 IMM.PAST-SC1sg-*drink*-FV
 ‘I was drinking’ (IMMEDIATE)

- (2.57) *Bé-ngí-náts-a*
 REM.PAST-SC1sg-*drink*-FV
 ‘I was drinking’ (REMOTE)

Nurse in his appendix for isiZulu categorizes the corresponding isiZulu tense as a recent PAST and describes the form as IMPERFECTIVE which is the same in siSwati although Nurse does not refer to H tone encoding remote temporal proximity (Nurse, 2008: Appendix isiZulu S42). In Z&M these forms are described as ‘continuous’ (Ziervogel and Mabuza, 1976: 100) but as I will show below, this is problematic, and I will refer to the forms with *be-* as compound tenses which display either PERFECTIVE or IMPERFECTIVE aspectuality.

2.2.4 Verbal aspect and aspectual inflection in statives

In this sub-section I discuss the morphology of the STATIVE PERFECT which encodes grammatical aspect and contrasts with stative verbs that refer to lexical not grammatical aspect and for which I do not use small capitals as described in my text conventions. The criteria which distinguish them from dynamic verbs are syntactic and semantic, so in English they do not appear with the PROGRESSIVE and in many languages they do not appear in the PASSIVE. Many authors prefer INCHOATIVE for stative when describing Bantu verbs and Cole describes INCHOATIVE verbs in Bantu as indicating ‘an action which can continue for only a limited period of time before attaining completion of the action, whereupon some type of mental or physical state results’. Examples of Tswana (S31) INCHOATIVE verbs include: *-dula* (‘to sit’), *-kgora* (‘to be replete with food’) *-lapa* (‘to be tired’) *-apara* (‘to dress’) (Cole, 1955: 276, Guthrie, 1967-71). Their lexical equivalents in siSwati are STATIVE PERFECT:

- (2.58) *Ngi-hlel-i*
 SC1sg-*sit*-STAT.PERF.FV
 ‘I am sitting’

- (2.59) *Ngi-suts-i*
 SC1sg-*be full*-STAT.PERF.FV
 ‘I am full’

- (2.60) *Ngi-dzin-iwe*
 SC1sg-*be tired*-STAT.PERF.PASS.FV
 'I am tired'

Examples (2.58) and (2.59) take *-i* as FV rather than regular *-ile* and example (2.60) takes the PASSIVE FV. A dynamic verb can encode stative aspect and the lexical equivalent of the last of the Tswana examples in siSwati is:

- (2.61) *Ngi-gcok-ile*
 SC1sg-*dress*-DIS.PERF/STAT.PERF
 'I have dressed'
 'I am dressed'

There is a view that INCHOATIVE is preferable for these types of verbs and a compromise position refers to them as INCHOATIVE/stative because of their widespread description as stative (Rose et al., 2002: 43). In view of the lack of consensus amongst authors I follow the practice of the standard grammar of this analysis and use the terms stative or STATIVE PERFECT as appropriate (Ziervogel and Mabuza, 1976).

2.3 The moods in siSwati

In this section I describe the five principal moods and their sub-moods which constitute the siSwati verbal conjugation as described in Rycroft's grammar outline in his dictionary and Z&M's and Taljaard's siSwati grammars (Rycroft, 1981, Ziervogel and Mabuza, 1976, Taljaard et al., 1991). These are the three sources which are heavily influenced by Doke's earlier work in isiZulu (Doke, 1947) and I have interpreted these examples from the standard grammars in the light of my own data for reasons of semantic accuracy and to avoid contradictory interpretations in the subsequent chapters of this analysis. This section is therefore a synopsis of the siSwati taxonomy as found in the standard grammars and as far as possible follows their profile and terminology but it is presented in the light of research data gathered from my consultants and the re-analysis of the taxonomy which is undertaken in this thesis.

In the middle of the last century Bantu languages were regarded by some linguists as typologically so different from European languages that it was felt a completely radical

analysis with new terminology was required. Doke's grammar was written in this spirit, often idiosyncratic and dated when viewed from a contemporary general linguistics perspective. As these sources are the only grammars available my introductory description of siSwati inevitably draws heavily upon them but I also reference more modern approaches adopted by Nurse and others (Nurse, 2008). I also describe the tenses that appear in these moods and analyse their properties regarding their respective time-frames. As Doke had considerable influence on the authors of the later siSwati grammars, it is unavoidable to reference him fairly extensively in the following sections but by doing so many of the positions taken by the later sources are more readily understood.

(2.62) Summary of siSwati moods

1	INDICATIVE Mood	(main statements)
	Basic Tenses	
	INDICATIVE sub-mood	PARTICIPIAL
	INDICATIVE sub-mood	RELATIVE
	INDICATIVE sub-mood	compound tenses ('continuous')
2.	POTENTIAL Mood	(with <i>-nga-</i> 'can/might')
3.	SUBJUNCTIVE Mood	(purpose clauses, consecutive actions, requests, after deficient verbs)
4.	IMPERATIVE Mood	
5.	INFINITIVE Mood	

2.3.1 INDICATIVE mood

The INDICATIVE mood normally expresses the main statement and constitutes the main clause and five time degrees are distinguished: REMOTE and IMMEDIATE PAST, PRESENT, IMMEDIATE and REMOTE FUTURE. These are represented by five basic tense forms, but there are further compound forms: PAST, PERFECT and FUTURE which when appearing with *be-* Rycroft calls 'continuous' but they are more correctly described as 'compound' which describes their morphology and not their aspectuality. They are formed with *be-* and most

are IMPERFECTIVE, although some forms take PERFECT lexical verbs and are PERFECTIVE. Some forms encode INCEPTIVE, others CONDITIONAL aspect and I discuss these issues in detail in chapter six. In the four sub-sections below (2.3.1.2 to 2.3.1.5) I describe these tenses under the headings of Compound tenses, Stative, FUTURE and REMOTE PAST but in this introductory section I review the basic (i.e. not compound) tenses in the light of a comparison between Doke's terminology (in isiZulu) and the modern approach. A section on the PARTICIPIAL sub-mood follows which is integral to the analysis of compound tenses.

Rycroft refers to so-called implication morphemes, *-sa-* ('still') and *-se-* ('already', 'now', 'then') which I analyse as aspectual markers, he also refers to an IMMEDIATE PAST tense that has the *-ile* suffix which indicates PERFECT or ANTERIOR (Rycroft, 1981: xxvi).

In Nurse's more recent classification of isiZulu, he recognises five time degrees as detailed above and in his appendix matrix for isiZulu each tense is profiled encoding one of five aspects labelled: PERFECTIVE, IMPERFECTIVE, PERSISTIVE, INCEPTIVE and ANTERIOR (Nurse, 2008: Appendix isiZulu S42). His analysis generally agrees with the forms appearing in the siSwati standard grammars but his PERSISTIVE aspect describes what Z&M call Progressive. Their analysis conflicts with the terminology used in this thesis as I distinguish between the PERSISTIVE and the Progressive as the former links two separate time periods in which an activity is continuing or not, whereas the latter refers to a single time period in which an activity is continuous. The PERSISTIVE is morphologically encoded in siSwati but the Progressive is not. Nurse's ANTERIOR lists relative PERFECT tenses including the PLUPERFECT which is formed with either the PAST tense concord or the PAST auxiliary *be-* and a PERFECT aspect marker in isiZulu as they are in siSwati. He also lists the FUTURE PERFECT which is similarly formed with immediate or remote markers. His INCEPTIVE aspect is ALTERATIVE in siSwati which is encoded by *-se-* and in chapter five I describe the ALTERATIVE aspect and its marker and develop a detailed analysis.

'Implication' is used by Doke when describing the isiZulu TAM system, where the tenses are subdivided according to the implication of the action. There are three implications which are aspectual and denote either SIMPLE actions (in no way qualified), PROGRESSIVE (going on in the past and still going on) and EXCLUSIVE (not going on hitherto) (Doke, 1947: 162):

(2.63) a.	SIMPLE	<i>ngi-ya-thand-a</i>	I love ¹²
b.	PROGRESSIVE	<i>ngi-sa-thand-a</i>	I still love
c.	EXCLUSIVE	<i>se-ngi-thand-a</i>	I now love

The PROGRESSIVE implication is analysed in the present work as the PERSISTIVE aspect in siSwati and the EXCLUSIVE implication as ALTERATIVE aspect, although depending on context it could also be translated in siSwati as ‘I already love’ which I term the Exclusivity sub-sense of the ALTERATIVE. Nurse analyses (b) as PERSISTIVE and (c) as INCEPTIVE (Nurse, 2008: Appendix isiZulu S42) and Doke describes conjugations, moods and implications as follows: the isiZulu verb is divided into two conjugations, positive and negative ¹³ each of which has five moods, INDICATIVE, SUBJUNCTIVE, PARTICIPIAL, POTENTIAL and CONTINGENT in addition to INFINITIVE and IMPERATIVE. This generally matches the profile above (2.62) with different labels. CONTINGENT appears to be CONDITIONAL aspect, but Doke does not have sub-moods so his INDICATIVE includes basic and compound tenses. The tenses are divided into three implications as described in (2.63) and each is divided into three manners, INDEFINITE, CONTINUOUS and PERFECT which are described below (Doke, 1947: 124).

Doke labels auxiliaries as ‘deficient verbs’ and claims they form compound tenses with implications such as the PERSISTENT which is not synonymous with the PERSISTIVE as is evident from (2.64) (Doke, 1947: 211):

(2.64) <i>Ngi-lokhu</i>	<i>ngi-thand-a</i>
SC1sg-DEF.VB. <i>keep on</i>	SC1sg-love-FV
‘I keep on loving’	

This isiZulu deficient verb has no direct equivalent in siSwati but another example in isiZulu reveals the sense (Doke et al., 1990):

(2.65) <i>Be-ngi-lokhu</i>	<i>ngi-qhug-a</i>
PAST-SC1sg-DEF.VB. <i>keep on</i>	SC1sg-limp-FV
‘I was limping all the time’	

¹² These are isiZulu examples. In siSwati the equivalent expression is *ngi-ya-tsandz-a* (‘I love’) etc.

¹³ In my analysis I refer to this distinction as polarity.

Doke's PERSISTENT seems to encode a continuous or repeated action. It can be an act done repeatedly (2.64) or continuously (2.65) although the sense of (2.64) is ambiguous and may have a continuous sense. Neither appears to conform to my definition of PERSISTIVE aspect and by asserting that this deficient verb encodes a single aspect (PERSISTENT), when it can encode quite different aspects is confusing as both examples encode either ITERATIVE or PROGRESSIVE. Further examples with different verbs, analysed in context may clarify the situation but the key point is that the dual-time period nature of the PERSISTIVE is not included in Doke's analysis.

Doke states that tenses are subdivided by manner and time and that the latter division is not so clear in isiZulu as in 'many other Bantu languages' (Doke, 1947: 163). Manner is aspect which views the occurrence of an event in terms of its internal structure, and time is tense which views an event in terms of relative temporality. There are three manners and Doke states that the PERFECT is used only for stative verbs (Doke, 1947: 162).

- | | | | | |
|--------|----|------------|----------------------|--------------------------------------|
| (2.66) | a. | INDEFINITE | <i>ngi-hlal-a</i> | I sit |
| | b. | CONTINUOUS | <i>ngi-ya-hlal-a</i> | I am getting into a sitting position |
| | c. | PERFECT | <i>ngi-hlez-i</i> | I am sitting i.e. I am set down |

Doke's analysis of the PERFECT in (2.66c) is conventional and the unusual translation ('I am set down') is his,¹⁴ the example is STATIVE PERFECT as is evidenced by the shift to PRESENT tense, but the analysis of (2.66a) and (2.66b) as showing a difference in 'manner' or 'aspect' is problematic. The difference between the two forms is the disjoint PRESENT marker *-ya-* and in siSwati the conjoint/disjoint distinction does not relate to aspect as their use (PRESENT and PERFECT conjoint/disjoint) is dependent on the presence of a complement (see section 2.2.3.2. above). Standing alone, the disjoint form is usually correct, but with a complement the conjoint form must be used so the rules for their use are primarily syntactic not semantic although there are exceptions. In siSwati whether or not the disjoint and conjoint forms (PRESENT and PERFECT) are semantically distinct is controversial. Both forms of the PRESENT tense can encode Habituality, Generic or

¹⁴ This may possibly be a typographical error in Doke's grammar. 'I am sat down' seems more acceptable as being 'set down' and 'sat down' are quite different semantically. It is not a critical point and for my argument I rely on his first choice translation 'I am sitting'.

Progressivity depending on context. The disjoint PRESENT can indicate an activity is continuing in the present (Ziervogel and Mabuza, 1976: 174):

- (2.67) *In-dvodza* *i-ya-hlang-an-a* *na-ye*
 9-husband SC9-DIS.PRES-sleep-REC-FV ADV.PFX-API
 ‘The husband is sleeping with her’ (during the time of the pregnancy)

The conjoint PRESENT may be Generic or Habitual (Ziervogel and Mabuza, 1976: 174):

- (2.68) *Tin-khomo* *ti-dl-a* *tj-ani*
 10-cow SC10-eat-FV 14-grass
 ‘Cows eat grass’

Z&M identify the following syntactic rules (Ziervogel and Mabuza, 1976: 174):

1. The conjoint does not appear at the end of a sentence or phrase. It must be followed by a complement either an adverbial or an object.
2. The disjoint form terminates a phrase or clause.
3. The disjoint form can be used with an object concord with or without a following substantive object.
4. If a complement does follow the disjoint form the predicate is emphasized.
5. The disjoint form is never used with interrogative suffixes such as *-phi* or *-ni* (‘where/what’), nor with the impersonal construction *ku-* or before interrogative adverbials such as *nini* (‘when’).
6. The conjoint form is never used before an enclitic (*-ke*) or with certain conjunctions and adverbials, such as *kantsi* (‘whereas’), *phela* (‘indeed’) etc.

Nurse does not distinguish semantically between conjoint and disjoint forms either in the PRESENT tense or PERFECT tense/aspect (Nurse, 2008: Appendix isiZulu S42) as the following four isiZulu examples from his appendix matrix show:

- (2.69) *U-fun-a* *uku-dl-a*
 SC1-want-FV 15-eat-FV
 ‘She wants food’¹⁵

¹⁵ *Ku-dla* in siSwati, and *uku-dla* in isi-Zulu can mean either ‘food’ or ‘to eat’ so this could equally translate as ‘she wants to eat’

(2.70) *U-ya-hamb-a*
 SC1-DIS.PRES-go-FV
 ‘She goes’

(2.71) <i>Ngi-bon-e</i>	<i>aba-fana</i>
SC1sg-see-CON.PERF.FV	2-boys
‘I have seen boys’	
‘I saw boys’	

(2.72) *U-bon-ile*
 SC1-see-DIS.PERF
 ‘She has seen’
 ‘She saw’

The translations are Nurse’s and this lack of semantic distinction between conjoint and disjoint forms is consistently confirmed in my siSwati fieldwork data. Without undertaking a comprehensive analysis of Doke’s work, it appears that implications (PROGRESSIVE), manners (CONTINUOUS), even moods (POTENTIAL) are aspects (Doke, 1947: 162). Doke’s analysis of the examples in (2.66) as manner or aspect suggests that there is a semantic (aspectual) distinction between the conjoint and disjoint PRESENT forms. In the terminology of my analysis he is claiming that the disjoint encodes PROGRESSIVE and the conjoint does not which is unsupported by my research data.

2.3.1.1 INDICATIVE sub-mood: PARTICIPIAL

Before moving on to the various compound tenses of the INDICATIVE, I include a review of the PARTICIPIAL (or SITUATIVE) mood in siSwati because of its significance in the construction of compound verb forms. The auxiliary verb of a compound is in the INDICATIVE mood but the lexical verb is in the PARTICIPIAL even in contracted forms as will be demonstrated below.

Conjunctions and auxiliaries are not followed by the INDICATIVE (Ziervogel and Mabuza, 1976: 161), for example *solo* (‘still’) is followed by the PARTICIPIAL mood and the deficient verb *-ze* (‘until’) is followed by the SUBJUNCTIVE. The PARTICIPIAL is a dependent form of the predicate which is used when indicating the second or subsequent of simultaneous actions (Ziervogel and Mabuza, 1976: 162). What is meant by sub-mood is

that the PARTICIPIAL form will appear in an INDICATIVE sentence when following certain auxiliaries or deficient verbs. In Rycroft's description of siSwati verbal moods and tenses he describes the INDICATIVE mood as consisting of sub-moods which he terms the PARTICIPIAL and the compound tense sub-moods, and I follow his terminology here (Rycroft, 1981: xxvii). The PARTICIPIAL predicate resembles the INDICATIVE except for tonal changes with the exception of the subject concord for noun class 1 which is *a-* (or *-ka-* when following *na*, *ma* or *be-*) in the PARTICIPAL as opposed to *u-* in the INDICATIVE (Ziervogel and Mabuza, 1976: 111).

Rycroft describes such forms as playing an auxiliary role and being followed by the main verb. They often impose a fixed mood which could be PARTICIPIAL, INFINITIVE or SUBJUNCTIVE. Some deficient verbs are used without a subject concord and Rycroft describes their role as an invariable conjunctive. For example, *cishe* ('almost') (Rycroft, 1981: xxiii):

- (2.73) (Wa)-*cishe* wa-luny-w-a yi-nyoka
 (REM.PAST.SC1)-DEF.VB.*almost* REM.PAST.SC1-*bite*-PASS-FV COP.9-*snake*
 ‘He was almost bitten by a snake’
 Lit: ‘He almost was bitten it was a snake’

The subject concord of the auxiliary verb is optional but cannot be omitted on the lexical verb (Ziervogel and Mabuza, 1976: 116 & 158).

At the beginning of this chapter I defined tense, aspect and mood. The PARTICIPIAL mood is also known as the SITUATIVE and Nurse classifies it as an aspect together with the PERSISTIVE and ANTERIOR, as all three reference more than one time period but my analysis regards the ANTERIOR or PERFECT as a tense/aspect hybrid because the PERFECT form is used to encode PERFECTIVE IMMEDIATE PAST and contrasts with the REMOTE PAST encoded by the PAST tense concord or the H tone PAST tense marker *bé-*. To confuse the situation all three (PARTICIPIAL, ANTERIOR and PERSISTIVE) have been categorized as relative tenses by other authors rather than as aspects or moods (Comrie, 1985: 80, Bybee et al., 1994: 318). Nurse's argument is that they take as their point of temporal reference the tense mentioned elsewhere in the utterance which is often not the present and in fact, as is typical of aspects, they have no time reference at all, but can be interpreted as having

present reference if no other time is specifically mentioned (Nurse, 2008: 124). The PARTICIPIAL or SITUATIVE differs from the PERSISTIVE and ANTERIOR as in a narrative situation the events being encoded by the PARTICIPIAL are not the same situations but a series of independent situations. Nurse justifies his aspectual classification on the grounds that these three aspects combine with other tenses and aspects which is a feature of aspects and not tenses (Nurse, 2008: 123). For the PERSISTIVE he offers no further evidence for classification as an aspect, but with the ANTERIOR he lists four criteria for distinguishing it from PERFECTIVE PAST: (1) morphological expression, (2) occurrence in the second part of compound expressions, (3) behaviour of some stative verbs and (4) the range of reference involved (Nurse, 2008: 155). These four criteria apply specifically to Bantu languages, but my analysis classifies only the PERSISTIVE as aspect. The PERFECT or ANTERIOR is a tense/aspect hybrid as explained in section 2.2.3.1 and the PARTICIPIAL or SITUATIVE is classified as a mood as discussed above and in the definition of terms.

2.3.1.2 INDICATIVE sub-mood: Compound tenses

There are two relative IMPERFECTIVE morphologically encoded compound tenses in siSwati; FUTURE IN THE PAST and FUTURE IN THE FUTURE and there is an absolute IMPERFECTIVE morphologically encoded compound tense; FUTURE IN THE PRESENT. There are variants for each tense, but their morphological structure consists of an auxiliary verb that has a FUTURE marker and the auxiliary *-be* which encode INCEPTIVE or CONDITIONAL aspect and a lexical verb. Both auxiliary and lexical verb can encode tense/aspect and are part of a larger group which I classify as compound tenses that consist of relative and absolute tenses and can encode IMPERFECTIVE or PERFECTIVE aspect.

In this section I describe the basic forms but ALTERATIVE and PERSISTIVE aspect can also be encoded. All three IMPERFECTIVE compound tenses, FUTURE IN THE PAST, PRESENT and FUTURE encode INCEPTIVE aspect as they indicate the imminent commencement of an activity or entry into a state. The distinction between INCEPTIVE and ALTERATIVE is significant as the former encodes the commencement of an activity in a single time period whereas the latter encodes a change of activity or polarity between two separate time periods. The INCEPTIVE is a distinct aspect which is confirmed by the fact that ALTERATIVE and INCEPTIVE aspects can be encoded in the same verb form. The INCEPTIVE is

synonymous with INCHOATIVE for some authors (Rose et al., 2002: 42) and the latter term describes the beginning of a situation or state with stative verbs and entry into a situation or state with dynamic verbs.

In (2.74) *be-* appears word-initially as tense/aspect marker and word-finally as auxiliary and as the former, I gloss as a single morpheme to reflect its grammaticalized status because the loss of subject concord has reduced the structure and the form is fully grammaticalized (*ngi-be* > *be-*). However, as an auxiliary *-be* is glossed as being constituted of a root and final vowel. This approach reflects the different stages of grammaticalization towards a final stage when it will migrate to TAM slot four.¹⁶

FUTURE PERFECT

- (2.74) *Be-ngi-ta-b-e* *ngi-nats-ile*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-*drink*-DIS.PERF
 ‘I would have drunk’

The PERFECT lexical verb and auxiliary with FUTURE marker is evidence that (2.74) is a FUTURE PERFECT tense which encodes CONDITIONAL aspect and the lexical verb is PARTICIPIAL with only the tone different from the INDICATIVE. The semantic effect of *be-* (word-initial and word-final) on the event outcome is discussed in section 6.5 which reviews contracted and analytic compound verbs.

In the next two contracted compounds *be-* acts as a tense/aspect marker and in (2.75) *be-* has L tone encoding IMMEDIATE PAST and in (2.76) it has H tone encoding REMOTE PAST but in both it encodes IMPERFECTIVE aspect but not CONDITIONAL or INCEPTIVE as in analytic forms such as (2.74). Although not comprised of separate auxiliary and lexical verbs, these two examples are still in PARTICIPIAL mood as demonstrated below in (2.78) and (2.79).

IMMEDIATE PAST

- (2.75) *Be-wu-nats-a*
 IMM.PAST-SC2sg-*drink*-FV
 ‘You were drinking’

¹⁶ For a pre-cursor of this process see examples (2.78) and (2.79).

REMOTE PAST

- (2.76) *Bé-wu-nats-a*
 REM.PAST-SC2sg-*drink*-FV
 ‘You were drinking’

Many contracted forms have reduced from analytic forms in which *be-* was auxiliary and this transition is part of the grammaticalization process in which *be-* has changed from lexical verb to auxiliary to tense and aspect marker. Another feature of the grammaticalization of *be-* is the encoding of IMPERFECTIVE aspect, although some compound forms take PERFECT lexical verbs so it is incorrect to describe all compound tenses with *be-* as IMPERFECTIVE. The tenses described as ‘continuous’ compound tenses by Z&M include the tenses I describe as IMMEDIATE (2.75) and REMOTE PAST (2.76). The PERFECT or ANTERIOR tense (which is not a compound tense) is often labelled IMMEDIATE PAST:

- (2.77) *Ngí-nats-ile*
 SC1sg-*drink*-DIS.PERF
 ‘I am drunk’
 ‘I have drunk’

Examples (2.75) and (2.77) encode a similar time-frame in terms of relative temporal proximity, but the compound tense with *be-* in (2.75) is IMPERFECTIVE. The PERFECT or ANTERIOR in (2.77) is a PAST tense with current relevance classified as hybrid tense/aspect. PERFECTIVE aspects are temporally bounded and the counterpart IMPERFECTIVES are unbounded and this may have led to the inappropriate description of these compound tenses as ‘continuous’ when they are (in the main) IMPERFECTIVE.

In (2.75) and (2.76) *be-* is a prefixal PAST tense and IMPERFECTIVE aspect marker. The verb is in PARTICIPIAL mood and differs from the INDICATIVE in the class 1 subject concord which has two forms as in (2.78) and (2.79), the use of which appears to be speaker preference and of no semantic effect. Z&M prefer the second form (2.79) in their examples but do not explain their choice (Ziervogel and Mabuza, 1976: 101):

REMOTE PAST

(2.78) *á-bé-náts-à*
 SC1-REM.PAST-*drink*-FV
 ‘(while) he was drinking’

(2.79) *bé-ká-náts-a*
 REM.PAST-SC1-*drink*-FV
 ‘(while) he was drinking’

Z&M state that there are ‘possible’ tonal changes in the PARTICIPIAL mood compared with the INDICATIVE (Ziervogel and Mabuza, 1976: 101 & 112) but significantly when (2.79) is analysed in terms of the siSwati linear verbal template (see section 2.2.3.2) *be-* occupies initial slot one and *-ka-* slot two (for subject markers), whereas when (2.78) is analysed *a-* occupies slot two and *be-* is allocated to tense/aspect slot four. My experience during fieldwork is that variant (2.78) is more often encountered in modern speech and this would be consistent with the ongoing grammaticalization of *be-* and its migration to slot four. In the sentences of the example discourse in chapter eight, of the seven instances of verbs encoded with *be-* and class 1 subject concord six had the order where the marker *be-* had migrated to slot four.

Z&M do not distinguish between *be-* with H or L tone encoding REMOTE or IMMEDIATE PAST and with the class 1 variant my research reveals that when REMOTE PAST is encoded with the form in (2.78) the H tone does not appear on *be-* but remains on the initial morpheme as in (2.80), so it is correct to describe temporal proximity as being encoded by H tone on the initial syllable rather than on the tense/aspect marker *be-*. However if indeed *be-* is migrating to slot four then prior to this process it was the tense/aspect marker that displayed H tone.

(2.80) *á-be-náts-à*
 REM.SC1-PAST-*drink*-FV
 ‘(while) he was drinking’

Tense is defined as a representation of a location in time so any single verb form can only have one tense (Nurse, 2008: 14) but in compounds more than one tense marker can be present as compound tenses comprise inflected auxiliaries and inflected lexical verbs. The

first inflects for tense, aspect and other categories, while the second inflects for aspect and less often for tense (Nurse, 2008: 29). In languages like siSwati with multiple pasts and futures, the first auxiliary verb establishes a temporal reference point other than Speech time (present) and the second lexical verb takes that as its reference point, either anterior or posterior, as well as encoding aspect (Nurse, 2008: 124). The tense in the auxiliary and the lexical verb can be the same or different. That different tenses can be encoded may seem strange, but compound tenses behave like clausal sequences where the auxiliary acts as main verb and the lexical verb as subordinate clause (Nurse, 2008: 176). The following examples illustrate how compounds encode multiple tenses in the auxiliary and lexical verb expressing a rich array of temporal and aspectual meanings. The first is the relative FUTURE PERFECT tense shown as (2.74) above but repeated here:

FUTURE PERFECT

- (2.81) *Be-ngi-ta-b-e* *ngi-nats-ile*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-*drink*-DIS.PERF
 ‘I would have drunk’

In example (2.81) *be-* and *-ta-* the IMMEDIATE FUTURE marker encode CONDITIONAL aspect and the sense is that the speaker did not drink which raises issues of entailment and negative or positive outcomes in compound tenses which are explored in section 6.4. There is no temporal ambiguity as the PAST tense marker *be-* places the Event in the past. It exemplifies the problems discussed above and why it is incorrect to label the compound tenses with *be-* IMPERFECTIVE or ‘continuous’. In English the FUTURE PERFECT is ambiguous (‘I will have drunk’) as Event and Reference times can be anterior or posterior to Speech time so in terms of Reichenbach’s triple time system, the following situations are encoded:

- | | | | | | | |
|--------|-----|--------|---|-----------|---|-----------|
| (2.82) | (a) | Speech | > | Event | > | Reference |
| | (b) | Event | > | Reference | > | Speech |
-
- | | |
|-----|-------------------------------|
| (a) | ‘I will have drunk tomorrow’ |
| (b) | ‘I will have drunk yesterday’ |

This is an issue which affects many of the examples in this section and I am proposing that the siSwati expression is a relative PERFECTIVE tense and *be-* encodes PAST tense and

together with *-ta-* CONDITIONAL aspect thus avoiding ambiguity. Speech time is present, the deictic centre is at Reference time and Speech time follows both Event and Reference time which are in the past so in terms of Reichenbach's triple time system:

- (2.83) (c) Reference > Event > Speech
 (c) 'I would have drunk'

Although *be-* appears twice in the auxiliary, as tense and aspect marker (which normally encodes IMPERFECTIVE aspect) and as auxiliary verb, this is PERFECTIVE because of the PERFECT lexical verb.

Example (2.84) is the relative IMPERFECTIVE tense FUTURE IN THE PAST:

- (2.84) *Be-ngi-ta-b-e* *ngi-tawu-nats-a*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*drink*-FV
 'I would have been drinking'

Unlike (2.85) this form has the word-initial PAST tense marker prefix *be-*. This siSwati expression is not ambiguous and the issue of ambiguity in relative compound tenses both PERFECTIVE and IMPERFECTIVE is investigated in section 6.4. CONDITIONAL aspect is encoded and the PARTICIPIAL mood, as defined above, indicates the second or subsequent simultaneous action (Ziervogel and Mabuza, 1976: 162). In compound tenses the lexical verb is PARTICIPIAL which is an IMPERFECTIVE aspect that stresses the ongoing, incomplete nature of a situation (Nurse, 2008: 316).

FUTURE FUTURE (CONTINUOUS)

- (2.85) *Ng-ta-b-e* *ngi-tawu-nats-a*
 SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*drink*-FV
 'I shall be about to drink'

Example (2.85) combines FUTURE tense in both auxiliary and lexical verbs and encodes FUTURE tense and INCEPTIVE aspect (not CONDITIONAL) and as it has no PERFECT markers it is relative IMPERFECTIVE FUTURE IN THE FUTURE.

My consultant found it difficult to identify any difference between (2.84) and (2.85) but advised that ‘without *be-* the action is straightforward as the person knows he will do it’ so the absence of *be-* increases certainty, i.e. the event is imminent (INCEPTIVE), it is just about to occur but with the PAST tense marker the event was going to take place but was prevented (CONDITIONAL):

- (2.86) *Ngi-ta-b-e* *ngi-tawu-nats-a*
 SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*drink*-FV

nge-n-simbi *ye-siphohlango*
 ADV.PFX.at-9-bell PC9-eight

‘I will be about to drink at 8 o'clock’

- (2.87) *Be-ngi-ta-b-e* *ngi-tawu-nats-a*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*drink*-FV

na-ku-fik-a *Sibongile*
 ADV.PFX.when-15-arrive-FV 1a.Sibongile

na-le-ndzaba
 ADV.PFX.with-DP9-news

‘I was just about to drink when Sibongile arrived with the news’

In (2.86) drinking is expected to take place at a definite posterior time after Speech time. The speaker is predicting that at eight o'clock he will be about to have a drink. This is different from the simple FUTURE in which the speaker looks forward to the actual event not the time immediately prior to it. In (2.87) the time for drinking has passed. The speaker is looking at a time anterior to Speech time when he was about to take a drink and was prevented by Sibongile's arrival. The examples illustrate that the effect of word-initial tense and aspect marker *be-* is to switch the action from the future to the past and to encode CONDITIONAL rather than INCEPTIVE aspect resulting in a negative rather than the expected positive outcome.

PERFECT

The simple disjoint PERFECT of *ku-nats-a* (2.88) encodes PRESENT stative and dynamic senses in contrast to the compound form with *be-* which encodes PAST stative (2.89):

- (2.88) *Ngi-nats-ile*
 SC1sg-*drink*-DIS.PERF
 'I am drunk'
 'I have been drinking'
- (2.89) *Be-ngi-nats-ile*
 PAST-SC1sg-*drink*-DIS.PERF
 'I was drunk'
 ? ['I had been drinking']

In (2.89) the stative sense is unproblematic as it means 'I was drunk' but the dynamic sense is less straightforward as I posit that the combination of PERFECT marker and PAST tense marker encodes the PLUPERFECT but I show the meaning in square brackets and with a question mark. In consultant discussions I have established that with *be-* the PERFECT refers to an event in the more distant past but it has been difficult to establish that Reference time is also shifted back (encoding the PLUPERFECT) so further research needs to be undertaken on this issue. According to my consultant the form with the PAST tense marker (2.89) encodes as stative and has only the intoxicated sense.

FUTURE

- (2.90) *Be-ngi-tawu-nats-a*
 PAST-SC1sg-IMM.FUT-*drink*-FV
 'I was about to be drinking'

The sense of (2.90) indicates the activity was intended but not executed and it is not temporally ambiguous as the PAST tense marker places the action in the past. In order to avoid ambiguity English requires a temporal adverb but this is not the case in siSwati as PAST tense is encoded with *be-*. The compound tenses in siSwati morphologically encode both PERFECTIVE and IMPERFECTIVE aspect in relative and absolute tenses which is not the case in English which only has grammaticalized PERFECT relative and absolute tenses. *Be-* encodes PAST tense and with the FUTURE marker *-tawu* INCEPTIVE and CONDITIONAL aspect and with no PERFECT marker the verb form (2.90) is IMPERFECTIVE FUTURE IN THE PAST. This is a relative tense because the deictic centre is not Speech time but an anterior Reference time which is just prior to Event time so in Reichenbach's SER format:

Reference > Event > Speech

Nurse states that in compound tenses where PAST and FUTURE markers appear in auxiliary and lexical verbs the CONDITIONAL is encoded but I posit that (2.90) encodes both CONDITIONAL and INCEPTIVE. These two aspects are closely connected semantically as the INCEPTIVE aspect means that an event is imminent, that it is ‘about to’ happen and the CONDITIONAL aspect means that an event would have happened if it had not been prevented by external forces, that it was ‘about to’ happen but something prevented it. In Nurse’s appendix matrix for isiZulu, he describes as INCEPTIVE, forms which I describe as ALTERATIVE (Nurse, 2008: 312).

2.3.1.3 INDICATIVE sub-mood: Compound tenses: Stative

With regular dynamic verbs the suffix *-ile* can encode STATIVE PERFECT or PERFECT,¹⁷ but in (2.91) I have glossed the verb stem as encoding STATIVE PERFECT as the morphology of *ku-lal-a* (‘to sleep’) is irregular and it does not take the *-ile* suffix. The stative undergoes a tense shift as does the dynamic verb when encoding a stative sense.

- (2.91) *Ngi-lal-e*
 SC1sg-*sleep*.STAT.PERF-FV
 ‘I sleep, I am sleeping, I am asleep’

The multiple senses of (2.91) reflect Progressivity (‘I am sleeping’ is Progressive and the others are not) which is not encoded in siSwati so the appropriate meaning will be indicated in context. The tense shift results in the encoding of PAST tense in (2.92) and (2.93), with the PAST tense marker and STATIVE PERFECT. The PAST tense concord in (2.94) encodes absolute REMOTE PAST.

- (2.92) *Be-ngi-lal-e*
 PAST-SC1sg-*sleep*.STAT.PERF-FV
 ‘I was asleep’

- (2.93) *Bé-ngi-lal-e*
 REM.PAST-SC1sg-*sleep*.STAT.PERF-FV
 ‘I was asleep’

¹⁷ In my text convention aspects appear in small capitals. Stative verbs form a group which contrast with dynamic verbs and in this context I will use lower case. Also when describing meaning as dynamic or stative I will use lower case. Wherever I refer to the STATIVE PERFECT I will use small capitals.

- (2.94) *Nga-ngi-lél-e*
 REM.PAST.SC1sg-SC1sg-*sleep*.STAT.PERF-FV
 ‘I was asleep’
 ?[‘I had been asleep’]

As with the dynamic verbs in discussions with siSwati speakers I have established that with *bé-* (H tone) and *nga-* the STATIVE PERFECT form refers to an event in the more distant past. However, that the Reference time is also shifted back (encoding relative tense) has been more difficult to verify. These issues are addressed in sections 4.8 and 6.5 which deal with statives and analytic/contracted forms.

STATIVE FUTURE

- | | |
|------------------------------|------------------------------------|
| (2.95) <i>Ngi-ta-b-e</i> | <i>ngi-lél-e</i> |
| SC1sg-IMM.FUT- <i>be</i> -FV | SC1sg- <i>asleep</i> .STAT.PERF-FV |
| ‘I am about to sleep | |

According to Nurse (2.95) combines FUTURE auxiliary markers with PAST lexical markers and encodes CONDITIONAL aspect (Nurse, 2008: Appendix isiZulu S42) but I analyse as encoding INCEPTIVE not CONDITIONAL.

STATIVE PAST FUTURE

- | | |
|-----------------------------------|-----------------------------------|
| (2.96) <i>Be-ngi-ta-b-e</i> | <i>ngi-lél-e</i> |
| PAST-SC1sg-IMM.FUT- <i>be</i> -FV | SC1sg- <i>sleep</i> .STAT.PERF-FV |
| ‘I would have been asleep’ | |

This is a relative tense and there is no temporal ambiguity relative to Speech time in siSwati so the sense is that sleep did not occur as something prevented it. The tense derives from the auxiliary not the lexical verb so Reference and Event time occur anterior to Speech time in this STATIVE PERFECT form in which the deictic centre is Reference time and at that time the speaker was about to enjoy the benefits of sleep which could continue after Speech time, so in Reichenbach’s SER format:

Reference	>	Event	>	Speech
		Beginning-----End		

2.3.1.4 INDICATIVE sub-mood: Compound tenses: FUTURE

The morpheme *be-* can occur as either prefix (tense/aspect marker) or verbal base (auxiliary). As the former it appears in contracted verbal forms which are not canonical compound tenses as they do not have separate auxiliary and lexical component verbs (see section 2.3.1.2 above). In (2.97) *-be* is word-final in the auxiliary to the lexical verb (Rycroft, 1981: xxvii). When *be-* is word-initial it is performing the role of PAST tense marker and in conjunction with *-tawu-* the role of INCEPTIVE aspect marker.

IMMEDIATE FUTURE

- (2.97) *U-tawu-b-e* *u-nats-a*
 SC2sg-IMM.FUT-*be*-FV SC2sg-*drink*-FV
 ‘You are about to be drinking’

The lexical verb is PRESENT tense and PARTICIPIAL mood and the auxiliary encodes INCEPTIVE aspect with a sense of being ‘about to’ do something which is semantically similar to ALTERATIVE aspect that indicates a change of state. The FUTURE IN THE PRESENT compound tense (2.97) is absolute (deictic centre is present) but encodes INCEPTIVE aspect and contrasts with the absolute simple FUTURE (2.98):

- (2.98) *U-tawu/taku-nats-a*
 SC2sg-IMM.FUT-*drink*-FV
 ‘You will be drinking’

The compound form (2.97) means that the activity is definitely expected to take place and not some other activity. When word-initial and acting as a PAST tense marker, *be-* is acting as a fully grammaticalized tense marker. I propose that this is why as tense marker, *be-* can take H tone and encode REMOTE PAST but as auxiliary it does not, i.e. because of its location and function. As will be shown in the compound forms which follow, the tense markers can be contrasting so PAST and FUTURE markers can appear in the same form, such as IMMEDIATE FUTURE and DISJOINT PERFECT together in (2.101). When this happens the tenses indicated may be relative as opposed to absolute and depending on the presence of a PERFECT marker, encode either PERFECTIVE or IMPERFECTIVE aspect, both of which are morphologically encoded in siSwati.

PAST FUTURE

- (2.99) *Be-ngi-ta-b-e* *ngi-nats-a*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-*drink*-FV
 ‘I was (just) about to drink’

The IMMEDIATE FUTURE marker in the auxiliary verb in (2.99) is an abridged variant and the PAST tense marker with either L or H tone encodes temporal proximity. The lexical verb is PRESENT tense but with the PAST tense marker of the auxiliary verb this is an example of the FUTURE IN THE PAST. The semantic distinction between the compound forms which appear with and without word-initial (tense/aspect marker) *be-* is that the absence of *be-* increases certainty. Example (2.99) differs from (2.97) in that the latter does not have word-initial *be-* and the short form FUTURE marker in the auxiliary and both forms have a PRESENT tense lexical verb. I analyse (2.97) as FUTURE IN THE PRESENT because of the absence of word-initial *be-* and because certainty is increased as it would be in a present situation. With word-initial *be-* (2.99) is analysed as FUTURE IN THE PAST despite the PRESENT tense lexical verb because the lexical verb is in the PARTICIPIAL or SITUATIVE mood. The PARTICIPIAL is a dependent form of the predicate when indicating second or subsequent simultaneous actions (Ziervogel and Mabuza, 1976: 162) and this relationship is illustrated in the following example:

- (2.100) *Sa-m-khandz-a* *a-phek-a*
 REM.PAST.SC1pl-OC1-*find*-FV SC1-*cook*-FV
 ‘We found her cooking’

The first verb is REMOTE PAST and this is the tense of the expression. However the subsequent verb which is in the PARTICIPIAL mood is PRESENT tense and so in (2.100) the second verb does not determine the tense of the expression, nor does it in (2.99). As observed above, first auxiliaries are inflected for tense and aspect while lexical verbs and other auxiliaries always inflect for aspect but less often for tense (Nurse, 2008: 29). The sense of (2.99) is not that the activity was intended but unexecuted, but that it was imminent (INCEPTIVE not CONDITIONAL). In this relative tense *be-* appears as prefix tense marker and auxiliary and this co-occurrence has semantic impact on imminence and certainty as well as placing the Reference time and deictic centre in the past. However, in my fieldwork it has been difficult to establish precisely what is entailed individually and

PERFECT FUTURE

Example (2.101) combines FUTURE auxiliary markers with PAST lexical markers which according to Nurse encodes CONDITIONAL aspect (Nurse, 2008: Appendix isiZulu S42) and I analyse as encoding INCEPTIVE without *be-*, and CONDITIONAL with *be-*.

2.3.1.5 INDICATIVE sub-mood: Compound tenses: REMOTE PAST

REMOTE PAST

The omission of the PAST tense marker *be-* suggests that speakers have re-analysed the forms in which it appears as simple verbal constructions rather than auxiliary constructions. However to describe *be-* as optional is misleading (Ziervogel and Mabuza, 1976: 103). I investigate analytic and contracted forms in section 6.5 and their sense differs depending on the presence of *be-*. In (2.102) the translation in parentheses shows the meaning when *be-* is included. The PAST tense concord encodes REMOTE PAST tense and *be-* encodes INCEPTIVE

Event > Speech/Reference

Reference > Event > Speech

Beginning-----End

REM.PAST.SC1sg-(PAST)-SC1sg-*drink*-STAT.PERF/(DIS.PERF)
 ‘I had been drunk’
 (‘I had been about to be drinking’)

Without the tense/aspect marker *be-* (2.103) has a stative sense and the auxiliary *-be* is in parentheses to indicate that it can be included so the sense entails that the activity was prevented, it did not occur. This is the PERFECT or PERFECT STATIVE with two (possibly

three) PAST markers (the PAST tense concord *nga-*, the PAST auxiliary *be-* (optional) and the disjoint PERFECT FV). This analysis has shown it is incorrect to classify the presence of *be-* in examples (2.102) to (2.104) as optional as they encode different senses depending on the presence of the tense/aspect marker *be-*. It seems more accurate to regard them as transitional forms where the analytic form is becoming obsolete and semantic re-analysis of the surviving form is taking place.

FUTURE REMOTE PAST

(2.104) *Nga-(be)-ngi-tawu-nats-a*
 REM.PAST.SC1sg-(PAST)-SC1sg-IMM.FUT-*drink*-FV
 ‘I would have been drinking’

This is a relative tense with IMPERFECTIVE/CONDITIONAL aspect, a FUTURE IN THE PAST tense (see chapter six for analysis of these tenses) and the sense is of an intended but unrealized activity. The example encodes that the activity is unrealized with or without *be-* in contrast to those discussed above, because Nurse's dictum applies in view of the REMOTE PAST tense marker and FUTURE tense (Nurse, 2008: Appendix isiZulu S42).

Having completed a review of the principal INDICATIVE mood I now turn to the second of the five moods in siSwati.

2.3.2 POTENTIAL Mood

The class 1 subject concord of the POTENTIAL mood is *a-* and the final vowel in the negative differs from the INDICATIVE (Taljaard et al., 1991: 131). The POTENTIAL expresses an action which is possible and is marked by the POTENTIAL marker *-nga-*.

(2.105) *A-nga-nats-a*
SC1-POT-drink-FV
'He can drink' PRESENT

(2.106) *Be-ka-nga-nats-a*
 PAST-SC1-POT-*drink*-FV
 ‘He could drink’ PAST

(2.107)(a)-ngeke a-nats-e¹⁸
 (SC1)-DEF.VB.never SC1-drink-FV
 ‘S/he cannot drink’

The SUBJUNCTIVE mood is used in subordinate actions depending on or developing from a previous action. It is marked in the positive by FV *-e*, used in narratives in both PAST and PRESENT tense and is employed after certain conjunctions e.g. *kutsi* and *kube* ('so that'). In a string of commands, the second or subsequent commands take the SUBJUNCTIVE (Ziervogel and Mabuza, 1976: 168). The positive 2ps forms are shown but not all variations.

(2.110) *Wa-nats-a*¹⁹
 REM.PAST.SC2sg-*drink*-FV
 (and) ‘you drank’ PAST POSITIVE

¹⁹ The positive PAST SUBJUNCTIVE FV has L tone but in the positive INDICATIVE the FV is H (Ziervogel and Mabuza, 1976: 114).

- (2.111) *Wa-nga-nats-i*
 REM.PAST.SC2sg-NEG-*drink*-NEG.FV
 (and) ‘you did not drink’ PAST NEGATIVE

2.3.4 IMPERATIVE Mood

The IMPERATIVE is a verb form which can be used to express a command.

- (2.112) *Nats-a!*
drink-FV
 ‘Drink!’

- (2.113) *Nats-a-ni!*
drink-FV-PL
 ‘Drink!’ (plural addressee)

It is related to the SUBJUNCTIVE by the assumption of that mood’s form when used with an object concord. A first command is IMPERATIVE, but second or subsequent commands are second person SUBJUNCTIVE (Ziervogel and Mabuza, 1976: 170):

- (2.114) *Buy-a u-ngi-tsats-is-e*
come-FV SC2sg-OC1sg-*take*-CAUS-FV
 ‘Come and help me take (it)!’

2.3.5 INFINITIVE Mood

The *ku-* class (class 15) is known as the INFINITIVE or verbal noun class and contains nouns formed from verb stems by prefixing *ku-*. The INFINITIVE can be negated by inserting *-nga-* between prefix *ku-* and the verb stem and the FV changing to *-i* (Taljaard et al., 1991: 22).

- (2.115) *Ku-nats-a*
 15-*drink*-FV
 ‘To drink’

- (2.116) *Ku-nga-nats-i*
 15-NEG-*drink*-NEG.FV
 ‘To not drink’

The POTENTIAL, SUBJUNCTIVE, IMPERATIVE and INFINITIVE moods conclude this review of moods in siSwati.

2.4 Copulative predication

In Bantu languages copula verbs are usually versions of ‘be’. Copula auxiliaries appear in compound verb forms and copula constructions are often non-verbal in predicates where the subject concord is attached directly to a nominal or adjectival base. This is the case in siSwati and copula and possessive constructions are formed in the so-called copulative inflection, with or without a subject concord.

Under copulative inflection (‘it is...’) or when the noun is ‘agent’ of a passive verb, the prefix takes initial breathy voicing as in example (2.119). Alternatively noun classes 1, 3, 4 and 6 can prefix *ng-*, class 1a can preplace *ngu-* and class 9 can preplace *y-*. This causes tonal changes if the noun class has initial high tone before a non-depressor consonant and there are at least three syllables (Rycroft, 1981: xxi).

(2.117) *úm-ntfwana*
 1-child
 ‘child’

(2.118) *Ngú-m-ntfwana*
 COP.PFX-1-child
 ‘It is a child’

(2.119) *ü-m-ntfwana*²⁰
 COP.PFX.1-child
 ‘It is a child’

All nouns may be made copulative by changing their tone only. Usually the class prefix lowers its pitch (not necessarily its tone) (Ziervogel and Mabuza, 1976: 32):

(2.120) <i>úm-fâti</i>	>	<i>ùm-fâti</i>
1-woman		1-woman
‘A woman’		‘It is a woman’

²⁰ *ü-* breathy voicing (depressor consonant, or imposed depression on a vowel).

The adjective stem can take a copulative concord and be expressed in a series of tenses both positive and negative (Ziervogel and Mabuza, 1976: 51/2):

(2.121) *Ngìmù-dzé*
COP.SC1sg-AS.*tall*
'I am tall'

(2.122) *Bé-ngímù-dzé*
PAST-COP.SC1sg-AS.*tall*
'I was tall'

(2.123) *U-ngú-m-ntfwana*
SC2sg-COP.PFX-1-*child*
'You are a child'

(2.124) *Ú-ne-mu-khwá*
SC1-ADV.PFX.*with-3-knife*
'He has a knife'

The initial depressor consonant affects tone in certain nouns in the same way as copulative inflection (Rycroft, 1981: xx).

(2.125) *Á-bé-ngu-thíshela*
SC1-PAST-COP.PFX-1a.*teacher*
'He was a teacher'

(2.126) *Wâ-b-á* *ngu-thíshela*
REM.PAST.SC1-*be-FV* COP.PFX-1a.*teacher*
'He became a teacher'

(2.127) *U-tawu-b-a* *ngu-thíshela*
SC1-IMM.FUT-*be-FV* COP.PFX-1a.*teacher*
'He will become a teacher'

The choice of the PAST auxiliary *be-* in (2.125) encodes the 'being' sense while *-ba* in (2.126) and (2.127) encodes the 'become' sense. A full range of tenses can be used in these non-verbal constructions (Rycroft, 1981: xviii). The verbal predicate of a sentence is either a verbal form or a copulative and either can make a viable sentence (Ziervogel and Mabuza, 1976: 137):

- (2.128) *U-ya-dlal-a*
 SC1-DIS.PRES-*play*-FV
 ‘He is playing’

- (2.129) *In-hle*
 SC9-AS.*beautiful*
 ‘It is beautiful’

The noun, adjective or other part of speech undergoes copulative inflection (prefixed and/or tonal) while no actual verb is employed (Rycroft, 1981: xvii).

2.5 Word order

Word order in siSwati is flexible so when subject and object as substantives are used simultaneously they may change position freely providing that they are members of different noun classes (Ziervogel and Mabuza, 1976: 138) and there is an object concord (OC). The noun prefix for *make* (‘mother’) is null \emptyset (noun class 1a), and the subject concord (SC) is *u-* seen in *u-ya-ku-phek-a*. The noun prefix of *ku-dla* is *ku-* (noun class 15) and the OC is *-ku-* also seen in *u-ya-ku-phek-a*.

- (2.130) *Make* *u-ya-ku-phek-a* *ku-dla*
 1a.mother SC1-DIS.PRES-OC15-cook-FV 15-food
 ‘Mother is cooking (**the**) food’ (the food we will eat, not just any food)

- (2.131) *Ku-dla* *make* *u-ya-ku-phek-a*
 15-food 1a.mother SC1-DIS.PRES-OC15-cook-FV
 ‘Mother is cooking **food**’ (and not anything else)

- (2.132) *Make* *ku-dla* *u-ya-ku-phek-a*
 1a.mother 15-food SC1-DIS.PRES-OC15-cook-FV
 ‘**Mother** (not someone else) is cooking food’

- (2.133) *U-ya-ku-phek-a* *ku-dla* *make*
 SC1-DIS.PRES-OC15-cook-FV 15-food 1a.mother
 ‘Mother is **cooking** food’ (it is being cooked and not left to rot)

- (2.134) *Ku-dla* *u-ya-ku-phek-a* *make*
 15-food SC1-DIS.PRES-OC15-cook-FV 1a.mother
 ‘Mother is **cooking food**’ (and not doing something else as well)

The above pragmatic variations are examples of shifting emphasis and they are an indication of the significance of word order in the interpretation of my fieldwork data. Word order is particularly significant in expressions where lexical strategies with temporal adverbs, conjunctions and auxiliaries are used to indicate or encode aspectuality.

2.6 Summary

In this chapter I have provided an overview of the morphology and syntax of siSwati with particular emphasis on the Tense, Aspect and Mood system. SiSwati is an agglutinating language and the verb form comprises nine morphological/inflectional slots the form and function of which have been described and discussed. In this chapter I have included a glossary of tense and aspect terms and their definitions as employed in this analysis. I have described the five moods in siSwati and in the INDICATIVE discussed the series of tenses traditionally known as ‘continuous’ tenses and which are compound forms consisting of an auxiliary and a lexical verb. I have proposed that this series of tenses can be better classified as compound tenses with *be-*. A review of the morphology of siSwati verbal forms has shown that both PERFECTIVE and IMPERFECTIVE relative tenses are morphologically encoded. Two sections looked at copulative predication and word order.

In the next chapter I describe the methodology applied during my fieldwork and review the elicitation tools that I devised for the purpose which comprised of a series of representational Timeline sheets, computer generated Pictograms and Time Reference symbols. After describing the methodology I evaluate the strengths and weaknesses identified during and after its implementation.

3. Methodology

3.1 Introduction

In this chapter I describe the methodological approach adopted during my fieldwork which was conducted in the Sidwashini region just outside Mbabane, the capital of Swaziland. My data was gathered during three trips of over a year's duration between 2008 and 2010 and the morphological data on tenses and aspects was collected in a series of ninety-eight digitally recorded interviews with twenty-three speakers of siSwati. All my informants and consultants were bilingual in siSwati and English with siSwati as their first language. They were lecturers, teachers, students and managers of different gender, age and educational attainment and came from various districts within Swaziland. Consents were obtained and attention paid to ethical considerations incumbent on field researchers. The interviews consisted of three data streams, so each one was conducted with three informants for control purposes.²¹

The elicitation tools used (as described in the appendices and below) consisted of pictograms (captioned and uncaptioned), timeline sheets and time reference symbols which were devised by myself and to my knowledge have not been employed by other researchers in the same format and application. My original plan was to video activities and events but this proved impractical in terms of cost and resources. An alternative approach was the use of models or role-play but my interview content did not lend itself to such methods.

The interviews consisted of twelve pictograms for the dynamic verb *ku-nats-a* ('to drink') and six for the stative verb *ku-lal-a* ('to sleep') and the objective was to collect a rich source of tense and aspect data of siSwati, with particular reference to two aspects described as dual-time period aspects (PERSISTIVE and ALTERATIVE), and to test the research hypotheses described below. The interviews were conducted in the first person singular and INDICATIVE mood. The methodology revealed both weaknesses and strengths which are described in this chapter although the elicitation tools proved to be generally effective and with certain enhancements could be useful for future researchers. The

²¹ The full series comprised ninety-six interviews (32x3) with two repeated for methodological reasons.

interview stage was followed by an informal series of consultant reviews in which informants often later acted as consultants but care was taken to avoid overlap of collected data, so if data gathered during an interview was being followed up, then the original informant would not act as consultant.

In my interview program I sought to analyse the morpho-semantic details of the PAST, PRESENT and FUTURE tenses both absolute and relative, including immediate and remote forms. Aspectuality was a key feature being investigated as each tense was bifurcated into BASIC (i.e. non-PERSISTIVE) and PERSISTIVE which further divided into SIMPLE (i.e. not ALTERATIVE or EXCLUSIVE), ALTERATIVE and EXCLUSIVE aspects. During the interviews, examples of each of these aspects were elicited indicating Progressive and non-Progressive aspectuality and the interviews were conducted for both positive and negative polarity. The interviews were structured on the basis of the description in the literature (as summarized in Table 2.1 in section 2.2.3.2 above) and I have retained those interview headings when referencing my fieldwork data. The EXCLUSIVE was elicited as a discrete aspect although subsequent data analysis revealed that the Exclusivity sub-sense was encoded by the ALTERATIVE aspect marker *-se-* or lexically by *bese* or *ekugcineni* (positive) and *se-nga-ka* (negative)

Throughout this thesis I will not use the term ‘aspect’ as denoting a universal category. All languages do not have aspects like PROGRESSIVE and HABITUAL (and tenses like PAST, FUTURE etc.). Aspects are language specific and tied to specific morphemes. SiSwati has PERSISTIVE aspect, encoded by *-sa-*, but English doesn’t although it can encode Persistivity lexically. Conversely English has PROGRESSIVE aspect, but siSwati doesn’t, so PROGRESSIVE is not encoded in siSwati but Progressivity can be expressed lexically, including *Aktionsart*. An aspect (by convention in this thesis, in small capitals) is a particular combination of morpheme and an associated meaning, e.g. *-sa-* marks PERSISTIVE aspect, which encodes Persistivity. Progressivity, Persistivity and Habituality can be expressed in any language but PROGRESSIVE, PERSISTIVE and HABITUAL aspects are encoded and language specific. In the case of the ALTERATIVE Exclusivity sub-sense I use lower case to reflect that Exclusivity does not have the status of a discrete aspect although in both negative and positive forms the sub-sense can be morphologically encoded by *se-nga-ka* and *-se-* respectively as well as lexically by *e-ku-gcin-eni*.

This chapter is organised as follows. Section 3.2 describes the elicitation tools and their use and evaluates their strengths and weaknesses. An overview of the methods employed during fieldwork follows in section 3.3. The interviews and consultant reviews are described in sections 3.4 and 3.5. Morphological analysis and methodological issues are addressed in the last two sections.

3.2 Elicitation tools for siSwati fieldwork

My fieldwork objective was to investigate the siSwati TAM system and the formal interviews targeted the tenses, aspects and moods profiled in Table 3.1 while the consultant reviews focused on the markers for ALTERATIVE and PERSISTIVE aspects and the morphological encoding of compound tenses.

The interview objectives were to investigate the tense and aspect markers, the grammaticalized absolute and relative compound tenses and to develop an analysis of the siSwati TAM system based initially on the system outlined in Z&M and this was done for the INDICATIVE mood (negative and positive conjugations). Verbal forms not covered in their description such as the PERSISTIVE with *-sa-* were included in the interviews.

In Table 3.1 features listed as ‘included’ were targeted not those which emerged from the interviews such as the tenses with IMPERFECTIVE aspect (FUTURE IN THE PAST etc.):

	Included	Not included
Tense	PRESENT PAST (IMMEDIATE/REMOTE) FUTURE (IMMEDIATE/REMOTE) PERFECT or ANTERIOR PLUPERFECT FUTURE PERFECT	FUTURE IN THE PAST FUTURE IN THE PRESENT FUTURE IN THE FUTURE
Aspect	PERFECTIVE IMPERFECTIVE PERSISTIVE ALTERATIVE EXCLUSIVE (Exclusivity) Progressive	INCEPTIVE CONDITIONAL Habituality
Mood	INDICATIVE	POTENTIAL SUBJUNCTIVE IMPERATIVE INFINITIVE
Other	stative/dynamic absolute/relative negative/positive	active/passive

Table 3.1 Analysis of TAM features investigated in interviews

In order to apply the theoretical perspectives (see chapters eight and nine) it was necessary to represent and analyse the time units operating in siSwati temporal cognition, so I developed timeline sheets that I deployed before the informant during each interview together with pictograms and time reference symbols. Appendices 1 to 8 contain the full catalogue of pictograms, symbols and documentation but in order to describe the interview process I show those relevant to this exposition:

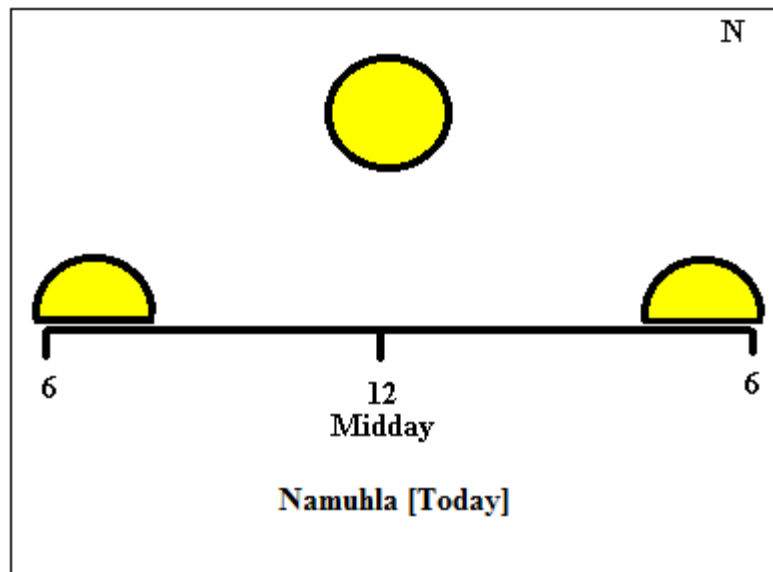


Fig. 3.1 Timeline Sheet for Today (*namuhla*)

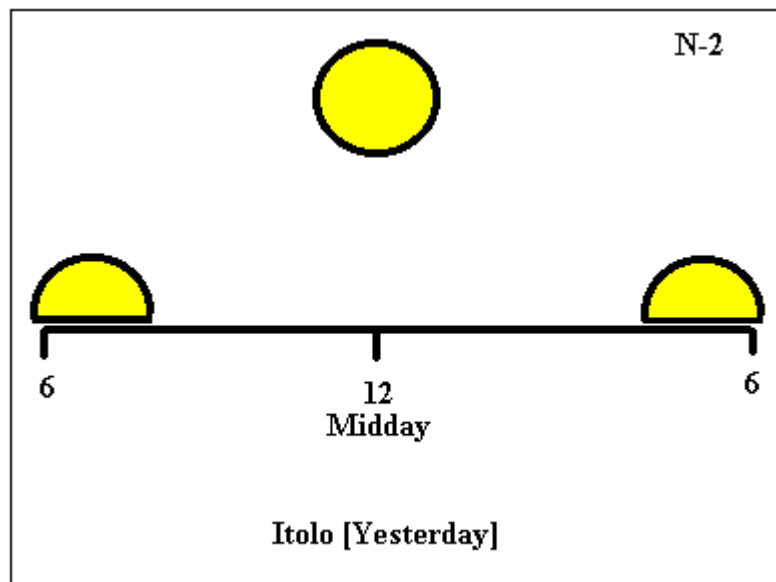


Fig. 3.2 Timeline Sheet for Yesterday (*itolo*)

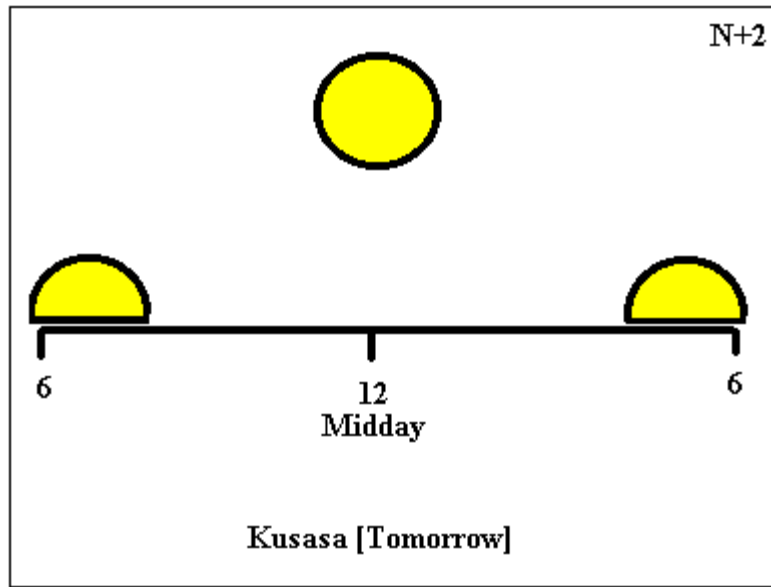


Fig. 3.3 Timeline Sheet for Tomorrow (*kusasa*)

The siSwati day is from sunrise to sunset so the temporal adverbs *namuhla* ('today'), *itolo* ('yesterday') and *kusasa* ('tomorrow') refer to the hours of daylight of each day and are depicted in Figures 3.1 to 3.3. The code in the top-right corner refers to the time period relative to 'now' which in Figure 3.1 represents the present and Speech time. In the actual timeline sheets the days were divided into hourly intervals, six hours either side of *emini* ('midday') and *ekhatsi ebusuku* ('midnight').

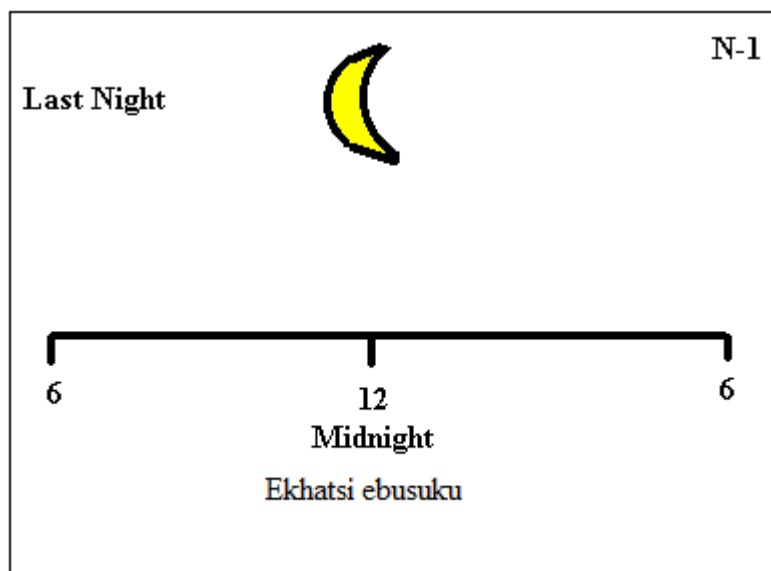


Fig. 3.4 Timeline Sheet for Last Night

There were timeline sheets for *ekhatsi lobuphelile* ('last night') and *ekhatsi lobutako* ('tonight') (codes N-1 and N+1). Last night is shown as Figure 3.4, Figures 3.5 to 3.7 extended back one year anterior to Speech time and there were also timeline sheets projecting one year posterior to Speech time:

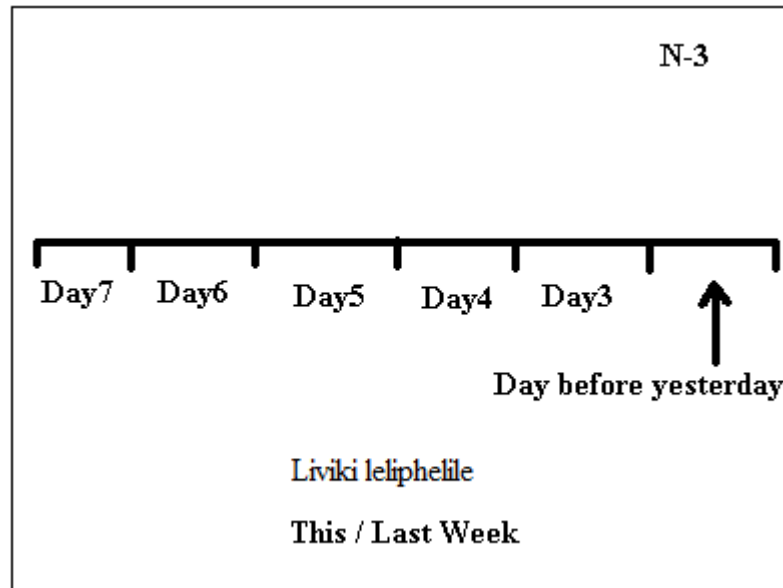


Fig. 3.5 Timeline Sheet for This week/Last week

The timeline sheet in Figure 3.5 covers the day before yesterday and the preceding five days. Depending on the day of the week the days anterior to the day before yesterday could be *leliviki* ('this week') or *liviki leliphelile* ('last week').

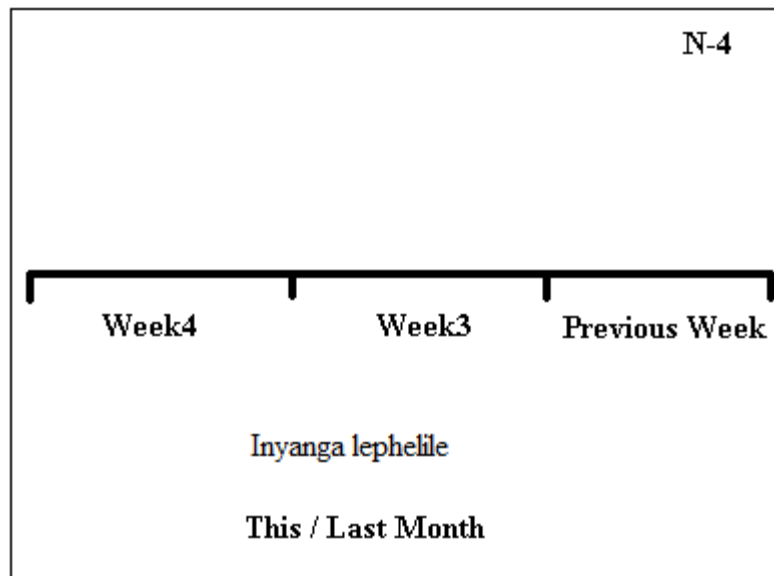


Fig. 3.6 Timeline Sheet for This month/Last month

The timeline sheet in Figure 3.6 covers the period three weeks beyond the previous week but it can include part of the current month and part of the previous or last month.

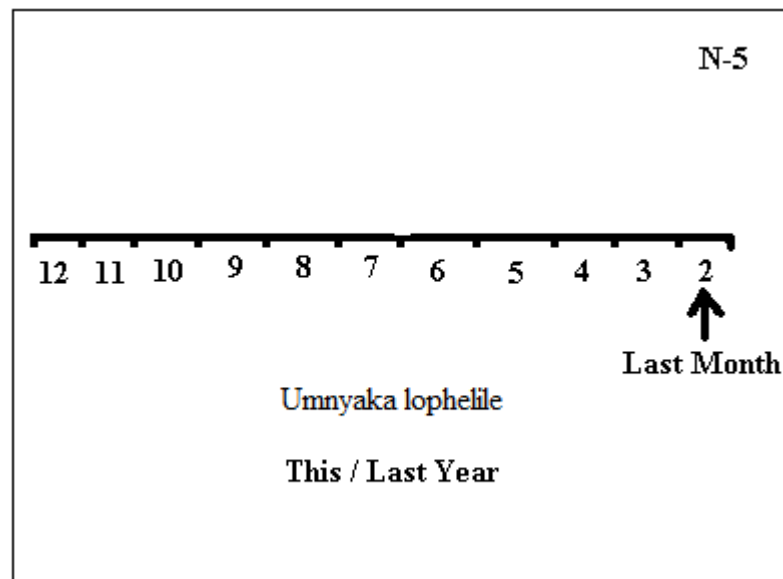


Fig. 3.7 Timeline Sheet for This year/Last year

The timeline sheet in Figure 3.7 covers the period eleven months beyond the previous month but it can include part of the current year and part of the previous or last year.

The full list of timeline sheets deployed was:

N-5	<i>Umnyaka lophelile</i>	Last year ²²
N-4	<i>Inyanga lephelile</i>	Last month
N-3	<i>Liviki leliphelile</i>	Last week
N-2	<i>Itolo</i>	Yesterday
N-1	<i>Ebusuku lobuphelile</i>	Last night
N	<i>Namuhla</i>	Today
N+1	<i>Ebusuku lobutako</i>	Tonight
N+2	<i>Kusasa</i>	Tomorrow
N+3	<i>Liviki lelitako</i>	Next week
N+4	<i>Inyanga letako</i>	Next month
N+5	<i>Umnyaka lotako</i>	Next year

The appropriate timeline sheets were placed before the interviewee as required in the interview, so for a PRESENT tense interview sheets N-1, N and N+1 would be deployed and for a REMOTE PAST interview, all timeline sheets back to N-5. The time reference symbols were then placed against the relevant section of the timeline. The Speech time symbol (S) was always *namuhla* ('now'):

²² As explained with the timeline sheet in Figure 3.7 *umnyaka lophelile* ('last year') covers the period eleven months beyond the previous month but it can include part of the current year and part of the previous or last year. This proviso affects the other 'last/next' timeline sheets.

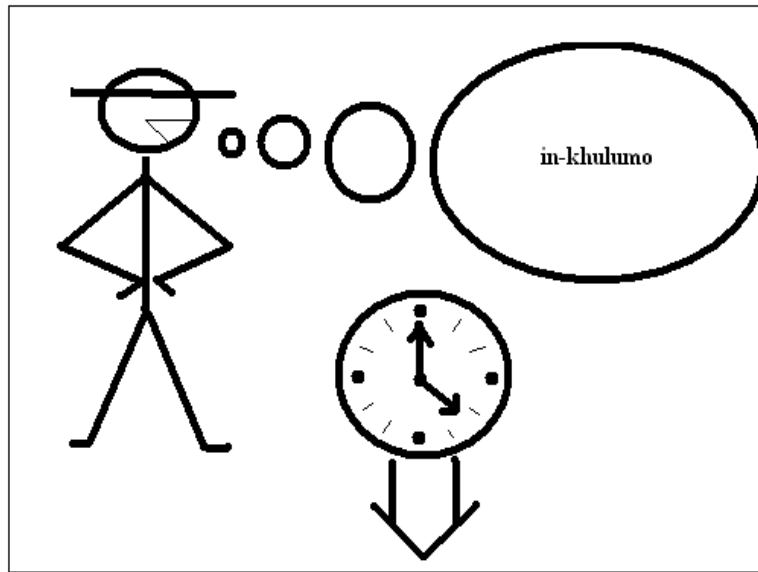


Fig. 3.8 Speech Time Symbol

The reference time symbol (**R**) was deployed for relative tense interviews:

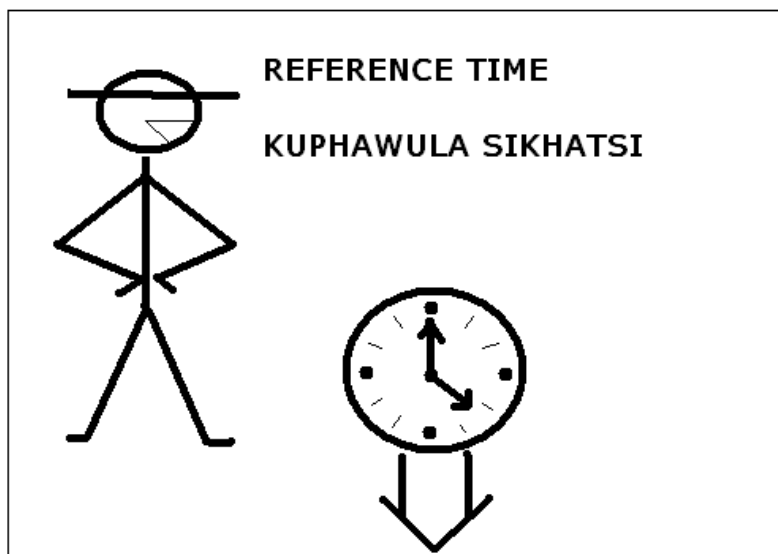


Fig. 3.9 Reference Time Symbol

The concept of relative and absolute tenses and the notion of a Reference time separate from Speech time is complex and the interviews conducted during my fieldwork targeted both absolute and relative tenses, but of the relative tenses only the PERFECTIVE forms were included. The concept of a Reference time displaced from the deictic centre, the present or Speech time was difficult to elicit which was a failure of methodology. What was more

important to my informants than the distinction between past, present or future Reference time was the relative temporal and cognitive proximity of Event time (immediate or remote, past and future).

The Negative elicitation symbol was displayed for negative interviews:

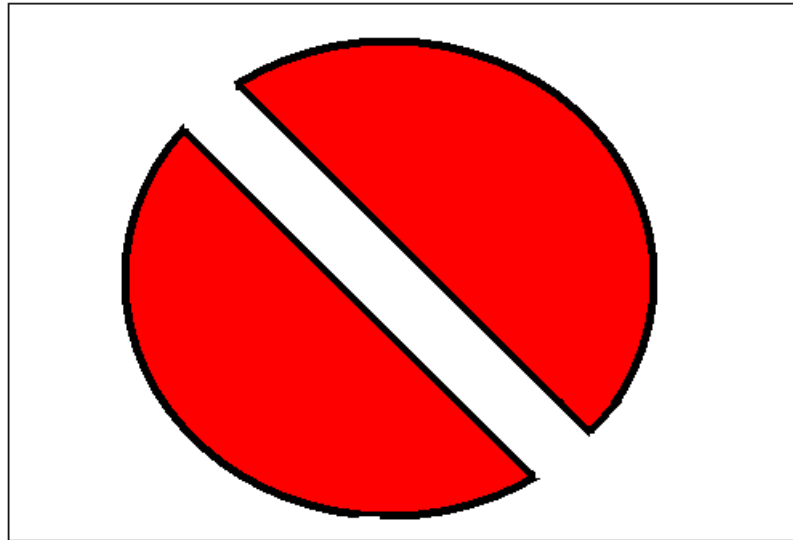


Fig. 3.10 Negative Elicitation Symbol

Each pictogram in turn was placed at the relevant point on the timeline and represented Event time (E). The aim of the pictograms was to avoid misunderstanding in the elicitation of siSwati verbal forms. All my informants were bilingual in siSwati and English so I designed the pictograms with and without English captions having explained the conventions of the representational diagrams. An uncaptioned pictogram, such as in Figure 3.11 was shown to the interviewee first:

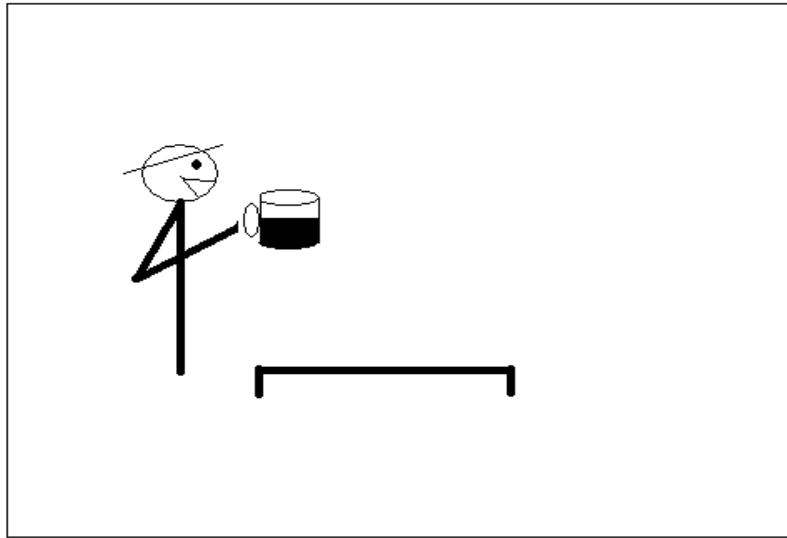


Fig. 3.11 Pictogram ('I drink') Uncaptioned

After the Interviewee had made their response in siSwati, I repeated that response and the informant then repeated it for a third time correcting me as necessary, then the corresponding pictogram Figure 3.12, captioned in English, was shown. The caption appropriate to the target expression was read out by the researcher in English from the past, present and future options (positive or negative) which appeared on each captioned pictogram. The caption acted as an oral confirmation of the scene being depicted so the interviewee could either confirm or revise their siSwati response so reading the English caption was a necessary safeguard against a conceptual misunderstanding by the informant of what the pictogram represented.

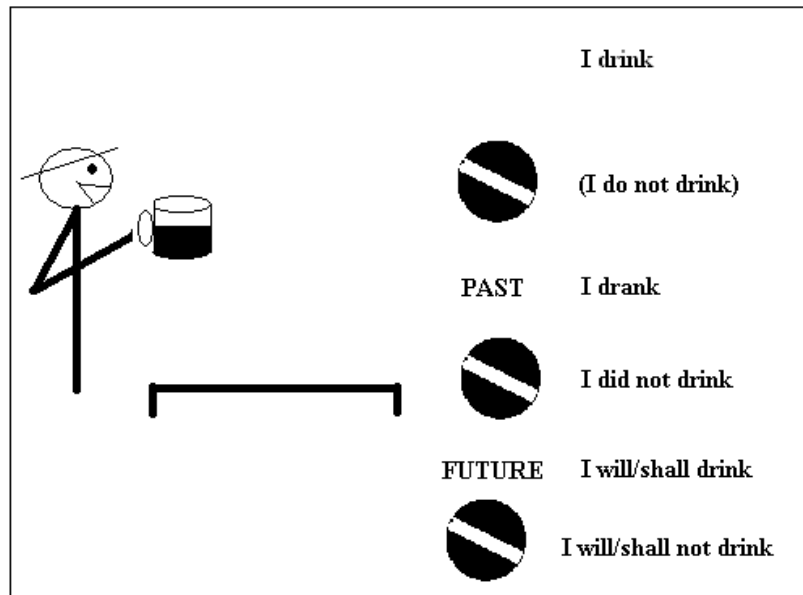


Fig. 3.12 Pictogram ('I drink') Captioned

The interviews were digitally recorded and all elicitation tools in use for a particular interview were logged but identification of the significance of IMPERFECTIVE, INCEPTIVE and CONDITIONAL aspectuality and the dual-time period nature of the ALTERATIVE and PERSISTIVE aspects, emerged from the consultant discussions rather than the formal series of interviews during post-fieldwork analysis.

3.3 Overview of methodology

Each interview was conducted with three different informants so there were three data streams and depending on the interview, either twelve (dynamic) or six (stative) numbered pictograms were shown to informants. Each pictogram was displayed with and without an English caption and related to specific tenses and aspects in my proposed analysis. A timeline covering the temporal scope of the interview was set before the informant together with relevant time reference symbols. After the interview the digital recording was transcribed and marked for tone and a narrative added highlighting noteworthy features.

During the interviews many of the responses to the pictograms were unvarying with the Progressive and non-Progressive pictograms consistently producing identical responses which was predictable as that aspect is not morphologically encoded in siSwati but when

informants did not distinguish between PERSISTIVE, ALTERATIVE and EXCLUSIVE this was unexpected. As with any data-gathering exercise, there is a learning curve for researchers and informants with varying individual performance. However, the volume of data gathered during my fieldwork could not have been gathered from a single source, and would have lacked informant variation, so then it would have been necessary to increase the number of data streams to ensure data integrity and validity which would have been impossible within the available time.

The captions were necessary as the elicited expressions became increasingly complex as compound tenses were introduced and the English 'prompt' used in conjunction with the pictograms aided clarification. The captioned pictograms performed a useful role and were used in conjunction with the uncaptioned pictograms not as a substitute. In the early interviews the uncaptioned pictograms elicited some unusual responses, for example I had anticipated no difficulties with the interpretation of Pictograms 1 and 2, i.e. between non-Progressive and Progressive:

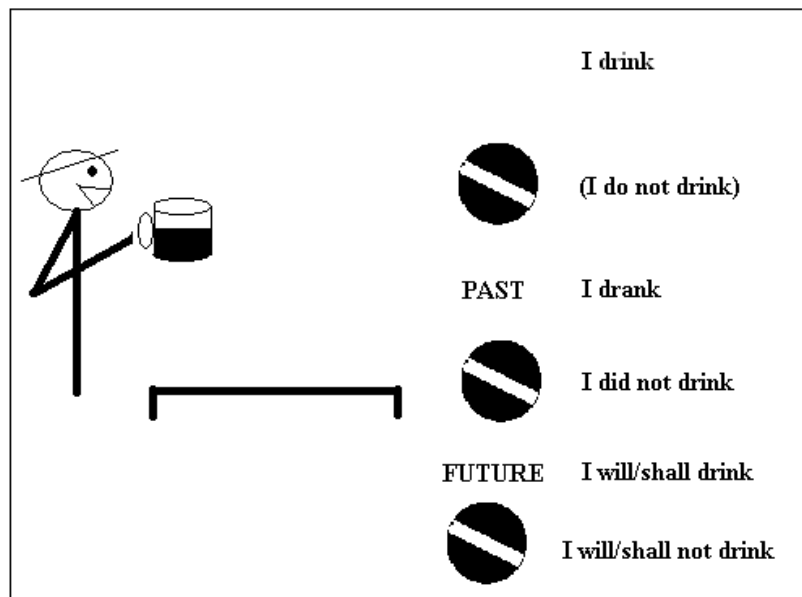


Fig. 3.13 Pictogram 1 BASIC (non-Progressive)

Pictograms are shown without the captions (tense, aspect and polarity), then with the captions which are read out. The first Pictogram (Figure 3.13) depicts a person (the speaker/interviewee) in a non-Progressive activity. The second pictogram (Figure 3.14)

shows the speaker/interviewee during the same activity and the multiple cups and arms are intended to represent a continuous (Progressive) process:

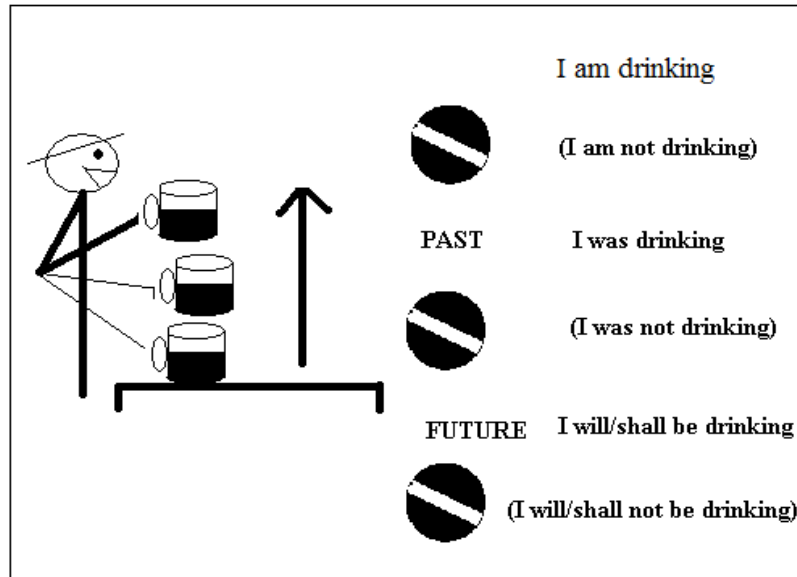


Fig. 3.14 Pictogram 2 BASIC (Progressive)

Unfortunately the Progressive Pictograms (as in Figure 3.14) were not always interpreted as representing the movement of a single individual i.e. an action in progress, but as one individual holding a number of cups or as several individuals or as a future event.

I addressed these difficulties with the introduction of the 'Pictogram Conventions' series which was a presentational tool developed to explain the methodology. Figures 3.15 and 3.16 are two examples from a series of six which were used to explain the pictograms to informants prior to the interviews when I gave a short briefing on the structure of the interview and the tools employed. The pictograms are formulaic and adhere to consistent principles so once an informant understands how a particular aspect is depicted, that knowledge can be applied throughout the interview. The 'Pictogram conventions' series did not resolve all difficulties of interpretation, but I consider that, together with the captions, the expressions being elicited were generally correctly understood by my informants. The pictograms acted as an unbiased, independent medium, but those beneficial qualities were counter-balanced by their inflexibility and un-naturalness.

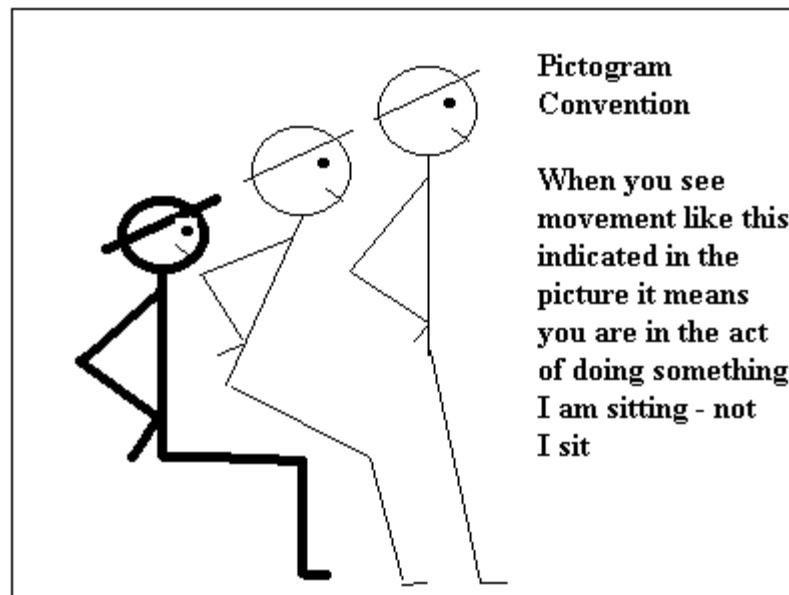


Fig. 3.15 Pictogram convention explaining Progressivity

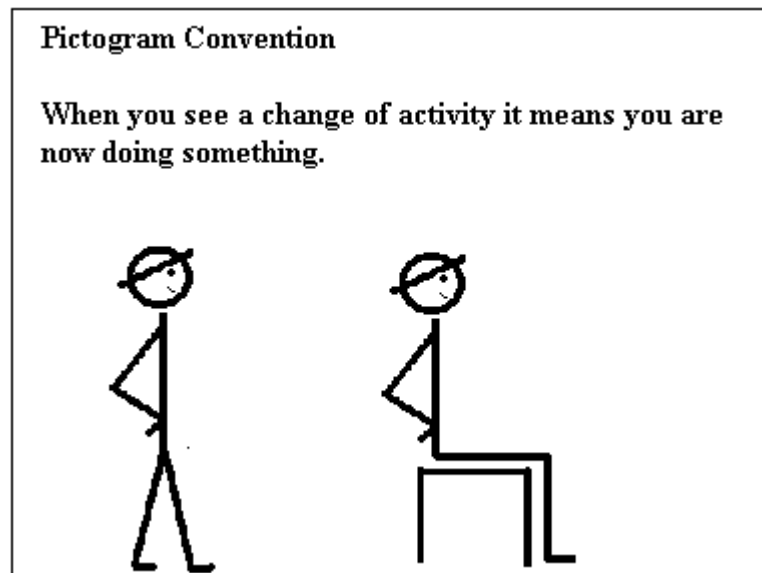


Fig. 3.16 Pictogram convention explaining ALTERATIVE aspect

My methodological approach used the semantic impartiality and transparency of the pictograms to identify the temporality and aspectuality of the verbal forms targeted. Figure 3.15 represents Progressivity with multiple images as previously described and Figure 3.16 represents the ALTERATIVE aspect encoded by *-se-* with two figures, one performing an action and the other not, representing someone who is switching activity (standing > sitting) or polarity (standing > not standing or not sitting > sitting).

All examples in this chapter that originate from a formal interview adopt the following format which establishes their provenance. They include the heading as in (3.1) and the interview reference number (7.1) and this format shows the target sense and the caption, as well as the actual response which may or may not accord. In order not to over burden the main text the pictogram is excluded but the full set can be found in the Appendices.

Pictogram 1 I drank (Heading – Pictogram number/Target expression)
BASIC NON-PROGRESSIVE (Aspectual classification)

(3.1) *Be-ngi-nats-a* (Response)
PAST-SC1sg-*drink*-FV
'I drank' (7.1)

It is said a picture can speak a thousand words, which may be so, but as far as the researcher and informant are concerned they are not always the same thousand words. The following interview illustrates a significant problem in the interpretation of the pictograms:

Pictogram 2 I was drinking
BASIC PROGRESSIVE

(3.2) *Be-ngi-sá-tó-náts-a*
PAST-SC1sg-PERS/ALT-IMM.FUT-*drink*-FV ²³
'I was still/now about to drink' (7.3)

The response in (3.2) was not the targeted BASIC Progressive sense ('I was drinking') but an IMPERFECTIVE relative tense the FUTURE IN THE PAST. What is interesting is why the Progressive pictogram prompted this response as when the caption was revealed the target response was offered. Upon studying the pictogram my informant had misinterpreted the multiple images of the raising arm/glass as a future event, not as an event in progress. She knew from the structure of the interview (the timeline sheets) that she was describing an event that took place in the past, *itolo* ('yesterday') so the FUTURE IN THE PAST tense was an understandable choice.

²³ I have shown as ALTERATIVE *-se-* undergoing phonological change and appearing as *-sa-* (see examples (2.49) and (2.50) in chapter two). The same form can also encode PERSISTIVE with *-sa-* appearing unchanged in TAM slot four and both possibilities are shown as alternatives in the gloss and the translation. This issue of phonological change of the aspect markers is addressed specifically in section 4.5 and 5.4 and generally in chapter five on the ALTERATIVE aspect.

The learning process and the enhanced methodological competence that was achieved encouraged me to bring together a core of informants, rather than rely on a disparate series of interviews. It was also the reason for conducting ‘back-to-back’ interviews of the positive and negative verb forms at the same sitting so the informant is confronted with the same series of pictograms in the negative interview, with only the negation symbol as a new variable. With the positive interview already completed, the cognitive contortion of reversing polarity for a linguistic response is considerably easier. This was confirmed by the reduced number of pictogram and caption disparities. The objective was to achieve zero disparities, because then the pictograms would be effectively performing their required function, with the captions acting merely as a confirmation but unfortunately that target was never quite reached. The interview pictograms are simple computer generated representations and more complex situational scenarios would not have been possible to represent with the graphics software available.

I conducted the interviews in siSwati which was worthwhile as it put informants at ease. The Introduction (*singeniso*) form (Appendix 8) is crucial as it links the interview to the specific forms of the verbal paradigm being investigated and records precisely what pictograms, timeline sheets and time reference symbols were before the informant. The first interview conducted in the negative conjugation (*kuphika*) presented some procedural problems as I had only recorded the positive PRESENT in English (i.e. ‘I drink’ etc.) on the captions so I up-dated the Pictograms to display both polarities. The immediate and remote PAST and FUTURE tenses did not need separate English captions as they were distinguished by their location on the timeline sheets. The PERFECT tense pictograms were also used for the PLUPERFECT and FUTURE PERFECT interviews together with the Reference time (**R**) symbol.

In the next section I review the procedural difficulties encountered during the interview stage of my fieldwork program.

3.4 The interview (*imibutfo*) stage

Many of the interviews produced responses which even with the explanatory captions did not relate to the targeted tenses and aspects as expected:

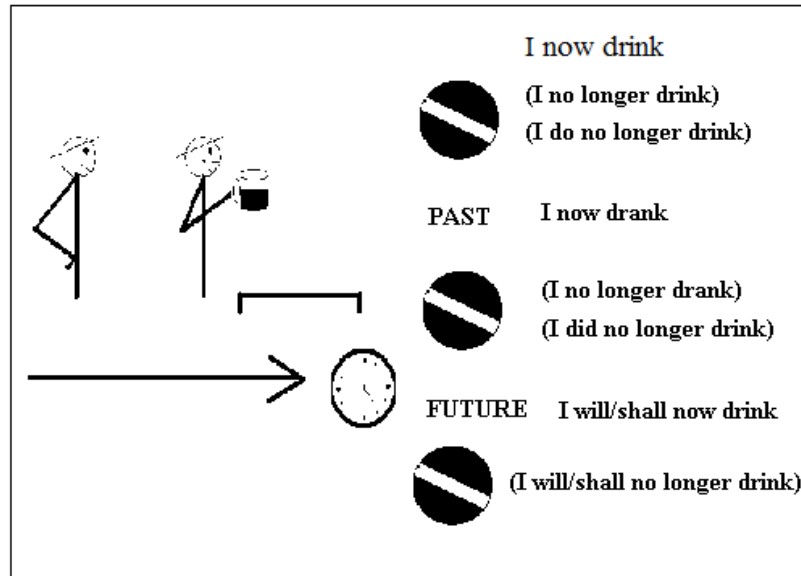


Fig. 3.17 Pictogram 3 Negative ALTERATIVE Non-Progressive

Examples (3.3) to (3.6) were all responses offered as alternative interpretations of Pictogram 3 shown as Figure 3.17:

Pictogram 3 I no longer drink
BASIC ALTERATIVE NON-PROGRESSIVE

(3.3) *Ngi-yáwu-náts-a*
SC1sg-REM.FUT-*drink*-FV
'I will drink' (4.7)

(3.4) *A-ngéke* *ku-yó-náts-a*
SC1-DEF.VB.*never* 15-REM.FUT-*drink*-FV
'He never will drink' (4.8)

(3.5) *Sé-ngi-ya-náts-a*
ALT-SC1sg-DIS.PRES-*drink*-FV
'Now I drink' (4.9)

The fourth response, example (3.6), reflected the targeted sense as detailed in the analysis in section 2.2.3.2 (Table 2.3) and which is also confirmed by expression (3.7), obtained during a subsequent consultant review, although in this contextual example there is an object concord present:

- (3.6) *Á-ngi-sá-náts-i*
 NEG-SC1sg-PERS/ALT-*drink*-NEG.FV
 ‘I no longer drink’
 ‘I still do not drink’²⁴ (4.10)

- (3.7) *Solo* *nga-yik-el-a* *si-kolo*
 CONJ.*since* REM.PAST.SC1sg-*leave*-APP-FV 7-*school*

*a-ngi-sa-yi-dlal-i*²⁵ *i-bhola*
 NEG-SC1sg-ALT-OC9-*play*-NEG.FV 9-*football*

‘Since leaving school I no longer play football’

The informant experienced considerable difficulty in providing the target response (negative ALTERNATIVE non-Progressive), and the first three interpretations offered, (3.3) to (3.5), were not as targeted in terms of tense, aspect and polarity which revealed a significant methodological problem with the pictograms and their ability to represent the target expression to this informant. A possible explanation for the problem may be the arrow and clock which was intended to represent time passing but which actually confused many informants so that later when describing the Pictogram conventions to new informants I described its purpose more clearly with an explanation accompanying the diagram shown as Figure 3.18:

²⁴ In example (3.6) the ALTERNATIVE aspect marker *-se-* appears as *-sa-* in TAM slot four as a result of phonological change but I also show alternative PERS. Similar phonological change takes place in examples (3.7), (3.9) and (3.10) but *-sa-* is glossed only as ALTERNATIVE as that was the intended response in each case.

²⁵ The presence of the object concord and substantive object implies definiteness. It is football that is being played and not any other ball game (Ziervogel and Mabuza, 1976: 212).

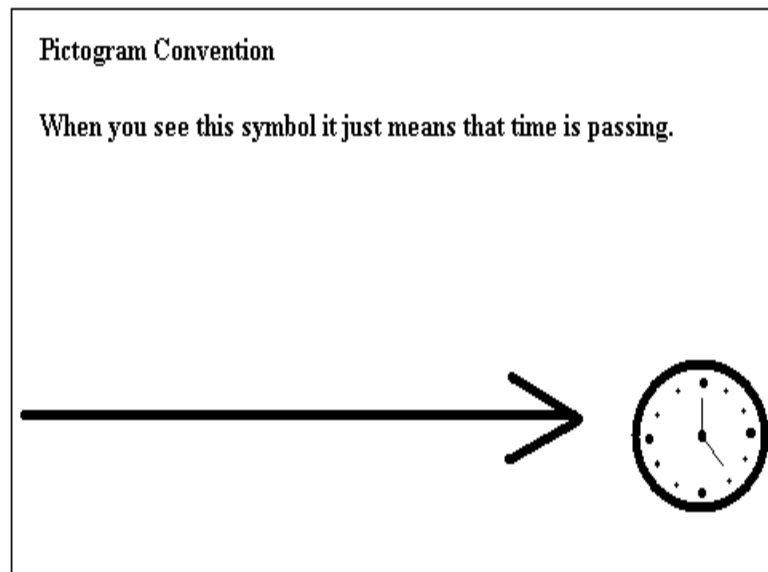


Fig. 3.18 Pictogram Convention explaining passing time symbol

As the interview continued, the next Pictogram, shown as Figure 3.19, targeted the negative ALTERNATIVE Progressive, ('I am no longer drinking') and a different problem of unvarying responses became apparent:

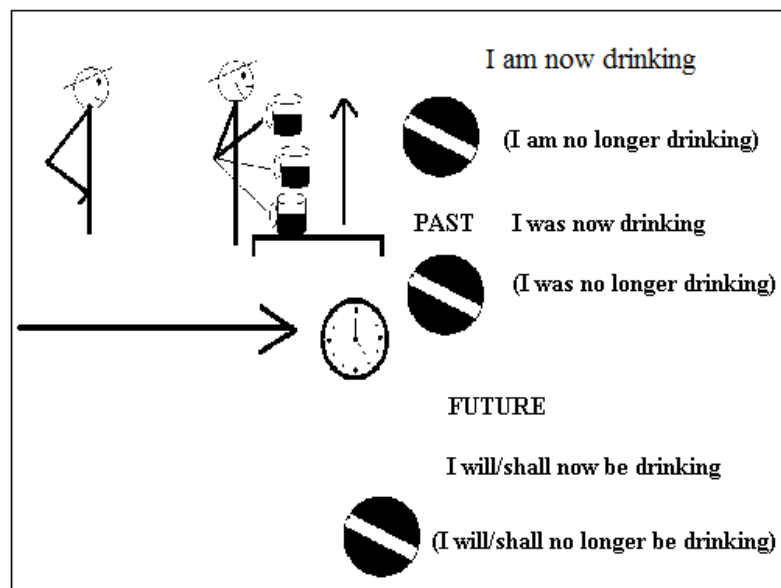


Fig. 3.19 Pictogram 4 Negative ALTERNATIVE Progressive

Pictogram 4 I am no longer drinking
BASIC ALTERATIVE PROGRESSIVE

(3.8) *Sé-ngi-ya-náts-a*
ALT-SC1sg-DIS.PRES-*drink*-FV
'Now I am drinking' (4.11)

(3.9) *Á-ngi-sá-náts-i*
NEG-SC1sg-ALT-*drink*-NEG.FV
'I no longer drink' (4.12)

Example (3.9) was the same response given to the previous non-Progressive pictogram (Figure 3.17) numbered example (3.6) but as the interview continued example (3.9) was repeated unvaryingly as the response to pictograms 5 to 9 inclusive. In Pictogram 4, shown above as Figure 3.19, in addition to the arrow and clock symbol, there was the depiction of Progressive aspect with multiple arms raising the cup in the act of drinking which may have added to my informant's confusion.

For some interviewees the weakness of the formal interview process was the use of the non-linguistic medium (i.e. pictograms) which was devised to avoid cognitive and semantic misunderstandings between researcher and (bi-lingual) informants but in some cases it was itself confusing and produced unpredictable and unvarying responses to a range of pictograms.

3.5 The examples (*tibonelo*) stage (consultant discussions)

My original target had been to conduct the interviews and with the remaining time embark on some less structured, more informal, unrecorded discussions with those informants willing to perform the additional role of consultant but with the interviews being completed quicker than anticipated the two stages were almost equal in duration. During the early interviews I had asked for examples from some informants but discontinued the practice as the benefit from obtaining rather simplistic phrases was negated by disruption of the interview. However, during the consultant review stage I prepared more relevant and searching examples in advance for discussion with consultants and this approach generally worked well so I adopted it as a feature of my reviews. However the weakness of this approach was that ancillary questions often arose during post-fieldwork review when the

consultant was no longer available. The following are examples of some of the problems encountered:

- (3.10) *Se-wu-nga-khulum-a* *ngobe*
 ALT-SC2sg-POT-*speak*-FV CONJ.*because*

a-ngi-sa-fundz-i
 NEG-SC1sg-ALT-*read*-NEG.FV

‘You can talk now as I am no longer reading’

The possible coalescence of the ALTERATIVE marker *-se-* and the 2nd singular subject concord *-wu-* in the first verb has been transcribed from memory and could have been *so-wu-* or *so-* and an opportunity to discuss these variants and their use was missed.

- (3.11) *Ngoba* *ngi-ne-mi-nyaka* *le-lishumi nambili*
 CONJ.*because* SC1sg-ADV.PFX-4-*years* RC4-RS.*twelve*

nga-se-nga-ka-sebent-i
 REM.PAST.SC1sg-ALT-NEG-PERF-*work*-NEG.FV

‘Being only twelve I did not yet work’

In example (3.11) the REMOTE PAST tense concord was used whereas the target tense was PRESENT and this should have been discussed and analysed during the interview. The explanation may be as simple as the fact that the informant was a student in her twenties and so twelve years old was to her the remote past and she assumed the role of speaker which had not been the intention in this case.

- (3.12) *Ngi-sandz-a* *ku-fik-a* *ngako*
 SC1sg-*just*-FV 15-*arrive*-FV CONJ.*therefore*

ngi-se-nga-ka-sebent-i ²⁶
 SC1sg-ALT-NEG-PERF-*work*-NEG.FV

‘I just arrived so I am not yet working’

²⁶ The verbal forms in (3.11) and (3.12) make up a minimal pair so encoding of PAST and PRESENT was confirmed.

Example (3.12) was intended to bring out the negative ALTERNATIVE Exclusivity sub-sense in the PRESENT which it has done but example (3.13) raised further issues:

- (3.13) *Ngi-se-nga-ka-wa-cedz-i* *ema-philisi* *ngako*
 SC1sg-ALT-NEG-PERF-OC6-finish-NEG.FV 6-pills CONJ.therefore
- ngi-se-nga-ka-nats-i*
 SC1sg-ALT-NEG-PERF-drink-NEG.FV

‘I am not yet finished (taking) my pills so I am not yet drinking’

The siSwati verbal forms are both ALTERNATIVE Exclusivity sub-sense but the target aspect was PERSISTIVE although by using the former sense in both verbs my consultant came close to the targeted meaning. There is a possibility that (3.13) illustrates the preference in siSwati for encoding change (ALTERNATIVE) rather than continuity (PERSISTIVE). For whatever reason, she responded as above, but may have been discouraged from encoding the PERSISTIVE because of this preference. Persistivity could have been expressed lexically with an appropriate adverb so the opportunity to discuss important issues of tense and temporal cognition was missed. Whilst the interviews sometimes produced unexpected and unvarying responses the consultant reviews could suffer from over-zealous paraphrasing.

3.6 Morphological analysis

It is not always evident which morpheme encodes the respective TAM features:

- (3.14) *Ngì-nàts-à* *li-tiya*
 SC1sg-drink-FV 5-tea
 ‘I am drinking tea’

It is not clear which morpheme (subject concord, verb stem or final vowel), if any, carries a PRESENT tense marker. It is unlikely to be the verb stem (*-nats-*) which encodes the verb’s meaning. One solution would be to posit that the form encodes PRESENT by default and is not marked for tense. However there are two forms, the conjoint and disjoint PRESENT and the PRESENT tense is encoded in the *-yà-* morpheme (see sections 2.2.3.2. and 2.3.1), so my gloss for that morpheme is disjoint PRESENT (DIS.PRES). Both the disjoint and the conjoint

have *-a* as FV so a null morpheme marked conjoint PRESENT between SC and verb stem might be a solution:

- (3.15) *Ngì-ø-nàts-à* *li-tiya*
 SC1sg-CON.PRES-*drink*-FV 5-*tea*
 ‘I am drinking tea’

However I have not adopted this method as it would be essential to be consistent with all verbal forms and such an approach may result in incorrect analysis in cases which are less straightforward.

The PARTICIPIAL mood is explicitly encoded in tonal changes (i.e. H tone on the verb stem) and the enclitic *-ko* can appear when the form is sentence final as shown in (3.16):

- (3.16) *Ngì-náts-à-kò*
 SC1sg-*drink*.PART-FV-ENCL
 (while) ‘I drink’ (Ziervogel and Mabuza, 1976: 111)

Where there is doubt as in (3.14) I will omit the gloss that relates to the TAM marker but if the morphology is more explicit I will gloss accordingly although I do not normally gloss mood. In example (3.17) the mood is also PARTICIPIAL following the deficient verb or auxiliary *-khatsi* (‘do only now’).

- (3.17) *Bo-babe* *ba-khatsi* *ba-fik-a*
 2-*father and company* SC2-DEF.VB.*only* SC2-*arrive*-FV
 ‘Father and company only arrived now’ (Taljaard et al., 1991: 155)

Auxiliaries followed by the SUBJUNCTIVE or PARTICIPIAL moods as above are common but the PARTICIPIAL mood is encoded in the tone and neither of the standard grammars consistently mark tone and where they do the tone distinction between INDICATIVE and PARTICIPIAL mood is not always clear. PARTICIPIAL mood is encoded in the subject concord for class 1 SC which is *a-* not *u-* but the problem remains for the other subject concords. Many ordinary verbs in siSwati can be used as auxiliaries and are followed by the INFINITIVE:

- (3.18) *Be-ngi-tsandz-a ku-hamb-a na-we*
 PAST-SC1sg-like-FV 15-travel-FV ADV.PFX.with-AP2sg
 ‘I wished to go with you (Taljaard et al., 1991: 154)’

The initial morpheme *be-* in (3.18) may be H or L tone. If it carries H tone (*bé-*), then the REMOTE PAST is encoded but if it is L tone then the tense is IMMEDIATE PAST so as the example bears no tonal diacritics I have glossed as PAST. Examples (3.17) and (3.18) were not marked for tone so I have not glossed mood or tense and in the main text will only do so when I am confident of the accuracy of any tone markings and when the gloss for a particular TAM feature is germane to my argument.

3.7 Methodological issues

The stative interviews conducted during my fieldwork were structured with only six pictograms split evenly between BASIC and PERSISTIVE and Progressivity was targeted on each pictogram with three captions shown and read to informants; ‘sleep’, ‘asleep’ (non-Progressive) and ‘sleeping’ (Progressive). In English the semantic distinction between these three forms is subtle and during one interview an EXCLUSIVE pictogram produced the following data:

Pictogram 3

I at last sleep	BASIC EXCLUSIVE NON-PROGRESSIVE
I am at last asleep	BASIC EXCLUSIVE NON-PROGRESSIVE
I am at last sleeping	BASIC EXCLUSIVE PROGRESSIVE

- (3.19) *Ngì-sé-sé-lél-e*
 SC1sg-ALT/PERS-ALT/PERS-STAT.PERF.sleep-FV
 ‘I at last/still sleep’ (37.03)

Reduplication of the ALTERATIVE or PERSISTIVE markers was not widespread (see section 5.7) and the positive ALTERATIVE Exclusivity sub-sense can be encoded lexically by *ekugcineni* (‘at last’). It appears that for this informant whilst *-se-* encodes ALTERATIVE (‘now’), reduplication of that morpheme encodes the Exclusivity sub-sense (‘at last’), although in section 5.7 reduplicated *-se-* as in expression (3.19) is shown to encode and emphasize PERSISTIVE aspect and so it appears that the aspectuality encoded by the reduplicated marker *-se-* is ambiguous (encoding either ALTERATIVE or PERSISTIVE having

undergone phonological change) and is disambiguated by context. The same consultant upon sight of the captions in Pictogram three offered the following response which was considered appropriate for all three variants:

- (3.20) *Se-ngi-ya-lál-a*
 ALT-SC1sg-DIS.PRES-*sleep*-FV
 ‘Now I am going to sleep’²⁷

Word-initial ALTERATIVE *-se-* as aspect marker typically encodes ‘already’ or ‘now’ but there are two significant issues arising, the first of which is the response itself and the second is methodological. Clearly my informant revised her understanding of the targeted sense upon seeing the captions by dropping the reduplication and switching tenses. Unfortunately because of the variation of my informant’s responses in this interview I did not investigate this switch at the time although I did later in my follow-up fieldwork. Methodologically, the decision to complete three data streams for control purposes was validated and the further investigation of anomalous interview responses in consultant reviews acted as a viable strategy for addressing problem issues such as individual speaker variation and confusing responses.

The next example suggests that selection of the dynamic verb *ku-nats-a* (‘to drink’) may not have been the optimal choice and in many of my later consultant reviews I switched to *ku-phek-a* (‘to cook’) and other less problematic verbs but the selection of *ku-nats-a* was deliberate because it is a regular verb morphologically:

- (3.21) *Ngí-sé-nga-ká-nats-í*
 SC1sg-ALT-NEG-PERF-*drink*-NEG.FV
 ‘I am not yet drunk’
 ‘I am still not drunk’

My consultant explained the sense of (3.21) is that the speaker is drinking and he is still not intoxicated so the expression would be appropriate when asked whether he is drunk for a second time. While *se-nga-ka* encodes negative ALTERATIVE Exclusivity the use of the PERFECT with *ku-nats-a* suggests not merely drinking but becoming intoxicated so

²⁷ This fieldwork example reveals the disjoint PRESENT ALTERATIVE of *ku-lal-a* has a dynamic sense indicating intention (‘going to sleep’) not a stative sense indicating an imminent event (‘about to sleep’), see chapter four example (4.80).

methodologically the choice of *ku-nats-a* in my interviews was problematic because of its dual stative/dynamic senses.

Ku-lal-a ('to sleep') was selected because its STATIVE PERFECT form is morphologically distinctive but pragmatically it was also a problem as when the speaker is asleep it is not possible for him to make an utterance to that effect:

- (3.22) *Ngi-lal-e*
 SC1sg-*sleep*.STAT.PERF.FV
 'I am asleep'

In the negative construction (3.23) the effect of *-sa-* is to encode a recent past event, perhaps when an oversight is realised immediately after a person has left despite the presence of the REMOTE PAST negative marker.

- (3.23) *A-ngi-sa-m-bon-is-anga*
 NEG-SC1sg-PERS-OC1-*see*-CAUS-REM.PAST.NEG
 'I still did not show him'

This is not a canonical PERSISTIVE because the speaker is informing the hearer that he had intended to show the third party something but neglected to do so. Before Speech time the speaker had the opportunity but he had not shown the third party and even after the meeting, because of the oversight, he still had not shown the third party. In order to indicate Persistivity a lexical strategy is employed:

- (3.24) *Solo* *a-ngi-m-bon-is-anga*
 CONJ.*still* NEG-SC1sg-OC1-*see*-CAUS-REM.PAST.NEG
 'I still did not show him'

Now the sense does not include any oversight as there is intent to withhold certain information for a second occasion. Without either *-sa-* or *solo* the sense refers back to a more distant past and does not encode PERSISTIVE:

- (3.25) *(k)a-ngi-m-bon-is-anga*²⁸
 NEG-SC1sg-OC1-*see*-CAUS-REM.PAST.NEG
 'I did not show him'

²⁸ The common form in modern speech is initial negative *a-* not *ka-*.

The sense in (3.23) can also be described as ALTERATIVE in that there was an activity switch from intending to show to not showing and this interpretation would be supported by the position that *-se-* had phonologically changed to access TAM slot four. It is therefore important to analyse examples in terms of their form rather than their function. In other words *-sa-* in (3.23) is either PERSISTIVE with the sense that at two different time points the speaker did not show the third party or it is *-se-* the ALTERATIVE marker with the sense that the speaker had intended to show the third party but the situation changed and he did not. An analysis in terms of function rather than form would assert that the ALTERATIVE was encoded by *-sa-* which would be incorrect. Similarly, the REMOTE PAST negative marker was not encoding distal temporality but the speaker's oversight i.e. the cognitive distance between the speaker's intention and his action.

3.8 Summary

In this chapter I have described how I gathered the morphological and semantic data on tenses and aspects by means of ninety-eight digitally recorded interviews which were conducted in three data streams, so each interview was undertaken by three informants for control purposes. I have described the elicitation tools used which consisted of pictograms (captioned and uncaptioned), timeline sheets and time reference symbols and (prior to each interview) an explanation of the Pictogram conventions being observed. The weaknesses of the methodology which became apparent during fieldwork have been discussed and I have reviewed the effectiveness of an informal series of consultant discussions which followed. Sections on morphological analysis and methodological issues concluded the chapter.

In the next three chapters I describe and analyse each of the three aspects with which this analysis is primarily concerned, PERSISTIVE, ALTERATIVE and INCEPTIVE commencing with PERSISTIVE which is morphologically encoded by *-sa-*.

4. The encoding of PERSISTIVE aspect in siSwati

4.1 Introduction

In this chapter I look at PERSISTIVE aspect and the first of three aspect markers with which this thesis is concerned, *-sa-* which encodes PERSISTIVE in siSwati. The PERSISTIVE is a dual-time period aspect which links two separate time periods in which an event or activity is taking place both in the first and second period, or in which an event or activity is not taking place neither in the first or the second period. I describe the morpho-semantic and syntactic behaviour of *-sa-*, consider the complementary distribution of *-sa-* and the ALTERNATIVE aspect marker *-se-* and the semantic and syntactic constraints imposed on them by their aspectuality. The PERSISTIVE aspect marker *-sa-* does not encode tense or act as an auxiliary but can appear in one of two different situations in which external forces are exerting their influence or not. A situation which continues un-opposed is classified as ‘weak’ and one that surmounts obstacles to continuation is classified as ‘strong’ with both situations being encoded by various morphological or lexical strategies. The aspect marker *-sa-* encodes ‘weak’ PERSISTIVE. With the ‘strong’ version the speaker can anticipate a positive outcome or the anticipated outcome may be negative and counter-expectational and the speaker’s expectation will influence the strategy adopted.

The PERSISTIVE aspect marker *-sa-* appears phonologically changed as *-se-* in various environments which are analysed and the encoding of PERSISTIVE aspect in clauses with stative verbs is reviewed in terms of Vendler’s classifications (Vendler, 1967). The interface between the PERSISTIVE, Progressivity and stative verbs is explored in terms of aspectuality and temporality followed by a section which discusses negation and aspectuality and the counter-expectational. The conjunction and auxiliary *solo* lexically indicates Persistivity and this analysis predicts that contemporary uses suggest that *solo* is taking over functions of *-sa-* and the present analysis shows that this development is likely to continue. In a final section the data described throughout the chapter is presented in an analytical grid which summarizes how the PERSISTIVE and ALTERNATIVE senses and the intervening period are encoded.

The chapter is organised as follows: section 4.2 describes the PERSISTIVE aspect in siSwati followed by 4.3 which looks at the PERSISTIVE as a dual-time period aspect and the nature of the intervening period and 4.4 reviews ‘weak’ and ‘strong’ situations encoded by the PERSISTIVE and ALTERATIVE. Section 4.5 analyses situations where *-sa-* undergoes phonological change and appears as *-se-* followed by 4.6 where the morpheme *-se-* encodes PERSISTIVE aspect. Section 4.7 discusses negation, aspectuality and the counter-expectational, 4.8 reviews statives and 4.9 analyses compound PERFECTIVE tenses. Section 4.10 reviews the dual semanticity of the conjunction and auxiliary *solo* and a grid of PERSISTIVE and ALTERATIVE aspectuality in 4.11 concludes the chapter.

4.2 The PERSISTIVE aspect in siSwati

In this section I describe the morpho-semantic, phonological and syntactic nature of the PERSISTIVE aspect marker *-sa-*, its relationship with *-se-* the ALTERATIVE marker including a historical analysis and a discussion of its relationship with the Progressive.

As described above the PERSISTIVE *-sa-* is a dual-time period aspect marker linking two time periods in which an event or activity is either happening or not in both and the persistive activity may or may not have continued uninterrupted during the intervening period. The ALTERATIVE *-se-* is also a dual-time period aspect marker which is the subject of the next chapter and encodes either an activity or polarity switch in the activity occurring in linked time periods but unlike *-sa-* it can also act as an auxiliary. The two aspect markers *-sa-* and *-se-* do not co-occur in the same verbal form and so they are in complementary distribution even though they can appear in the same predicate. This behaviour is a result of the PERSISTIVE and ALTERATIVE aspectuality which these morphemes respectively encode. The distinction between aspect marker and auxiliary is a significant factor in the function and distribution of *-sa-* and *-se-* as when acting as aspect markers, encoding PERSISTIVE and ALTERATIVE respectively, they are in complementary distribution, so the following is grammatically unacceptable as confirmed by my consultants:

- (4.1) **Se-ngi-sa-hamb-a* *e-dolobh-eni*
 ALT-SC1sg-PERS-go-FV LOC-5.town-LOC
 ?‘Now I still go to town’

From an aspectual viewpoint a situation cannot be continuing (PERSISTIVE) and changing (ALTERATIVE) as these two processes are mutually exclusive so neither the aspectuality nor the morphemes which represent them should normally co-occur. However, situations can arise in which an expression may reference two activities, one of which is changing but the other is not. SiSwati has various strategies to address such circumstances (multiple and sequential events in the same expression) including the use of temporal adverbs, conjunctions and auxiliaries such as *solo* ('still') which indicate Persistivity lexically.

In both the negative and positive conjugations in siSwati the PERSISTIVE aspect marker *-sa-* encodes continuity and the ALTERATIVE aspect marker *-se-* encodes activity and/or polarity change but both aspect markers can undergo phonological change depending on whether or not the construction is verbal and these changes are described and analysed in sections 4.5 and 4.6.

The historical development of *-sa-* the PERSISTIVE morpheme, as well as the ALTERATIVE marker and auxiliary *-se-* are possibly the result of a grammaticalization process which may have involved the verbs *ku-sal-a* ('to stay, live or remain') and/or *ku-s-a* ('to dawn'). Rycroft gives three other senses, in addition to 'to dawn' for *ku-s-a*: 'to clear up' (weather); 'to mature' and 'to be wise' all of which suggest change (Rycroft, 1981: 85). The grammaticalization of *-sa-* and *-se-* however may not be so straightforward. Nurse in a footnote observes: 'The matrix for Zulu (S42) in the Appendices has an INCEPTIVE *-sé-* which may be an imbricated anterior form of an older **-sala* ('stay, remain')' (Nurse, 2008: 161). In his definitions section, Nurse states that INCEPTIVE and INCHOATIVE are synonymous and denote a 'change of state' (stative verbs), 'entry into' (dynamic verbs), or 'start of a state'. They are often translated as 'be about to do' and he refers to *Aktionsart* (lexical) INCHOATIVE verbs such as 'bloom, wilt, burst into flames' etc. which is partially consistent with my ALTERATIVE category though that aspect encodes change rather than inception. It is also a dual-time period aspect which INCEPTIVE is not. I consider it to be more likely that *-se-* was grammaticalized from *ku-s-a* rather than *ku-sal-a*. *Ku-s-a* is the logical source because the sense of *-se-* is ALTERATIVE (change which incorporates activity/polarity switches either negative > positive or vice versa). *Ku-sal-a* could be the source for the morpheme *-sa-* which encodes the PERSISTIVE in my analysis and does have the sense of continuation but I do not support this position. Without having undertaken a

thorough historical linguistic analysis, I would posit that the verb *ku-s-a* is the source for grammaticalization of both. My argument is that a new day heralds change ('a new day' hence ALTERATIVE) and continues the unbroken flow of time ('from day to day' hence PERSISTIVE).

The aspect marker *-sa-* is described as PROGRESSIVE in both standard grammars (Ziervogel and Mabuza, 1976, Taljaard et al., 1991) and dictionary (Rycroft, 1981). The PROGRESSIVE encodes an event in a single period (continuous) whereas the PERSISTIVE links two separate periods during which an activity is still taking place or not (continuing) and this semantic distinction exemplifies the difference between these two aspects. The aspect marker *-sa-* does not encode PROGRESSIVE aspect or indicate Progressivity and the PROGRESSIVE is not encoded morphologically in siSwati. Progressivity is expressed contextually by various strategies in siSwati, including adverbially, and PERSISTIVE *-sa-* is compatible with such Progressive expressions. There are two aspect markers in siSwati which are plausible candidates for encoding PROGRESSIVE and they are the disjoint PRESENT *-ya-* and/or the PERSISTIVE *-sa-*. The former is eliminated on two accounts; (1) my fieldwork data confirms that both the disjoint and conjoint forms have both Progressive and non-Progressive senses:

- (4.2) *U-ya-fundz-a*
 SC1-DIS.PRES-*study*-FV
 'He is studying'
 'He studies'
- (4.3) *U-ϕ-nats-a* *li-tiya*
 SC1-CON.PRES-*drink*-FV *5-tea*
 'He is drinking tea'
 'He drinks tea'

And (2) if the PROGRESSIVE was grammaticalized it would necessarily be encoded across the full range of tenses not just PRESENT. The aspect marker *-sa-* encodes PERSISTIVE and not PROGRESSIVE which is demonstrated in the present study even though Rycroft refers to *-sa-* as a morpheme of the Progressive implication (Rycroft, 1981: 85) and Nurse recognizes that the PROGRESSIVE and PERSISTIVE aspects are closely related semantically (Nurse, 2008: 145). However, Progressive can be indicated lexically, as illustrated in examples (4.4) and (4.5). Expression (4.4) uses the quantitative pronoun with the plural

class 6 noun *ema-langa* ('days') encoding the sense of an event taking place on a daily basis and expression (4.5) employs the singular class 5 noun *li-langa* ('day') encoding the sense of an activity taking place continuously throughout the day which is Progressive.

- (4.4) *Thandekile u-(ya)-fundz-a onkhe ema-langa*
 1a.*Thandekile* SC1-(DIS.PRES)-*study*-FV QP.*all* 6-*day*
 'Thandekile studies every day'
- (4.5) *Thandekile u-(ya)-fundz-a l-onkhe li-langa*
 1a.*Thandekile* SC1-(DIS.PRES)-*study*-FV QC5-QP.*all* 5-*day*
 'Thandekile is studying all day'

I have placed the disjoint morpheme in parentheses because it is optional when a temporal construction follows as complement and there is no semantic effect by its inclusion or omission which is further evidence supporting the position that *-ya* does not encode PROGRESSIVE aspect.

4.3 The PERSISTIVE as a dual-time period aspect and the intervening period

In this section I describe how the PERSISTIVE aspect with *-sa-* links dual-time points and I also consider whether or not different strategies are applied to situations in which the activity is interrupted or not during the intervening period.

The following expression was uttered during my second field trip and referred to a visit six months earlier:

- (4.6) *Solo u-sa-dadish-a si-Swati?*
 CONJ.*still* SC2sg-PERS-*study*-FV 7-*Swati*
 'You are still studying siSwati?'

The temporal conjunction *solo* is optional and my consultant advised that there was no semantic difference resulting from its presence. In the following discussion I explore the possibility that different strategies are adopted when PERSISTIVE aspect appears in either of two situations:

- (a) One that links two separate time points and the activity persists during the intervening period without interruption.
- (b) One that links two separate time points and the activity persists during the intervening period but with interruption(s).

In (4.6) the intervening period was six months and the entire time was not spent studying but while this is the literal sense, pragmatically an individual speaker might regard the activity as uninterrupted. The classification of an utterance as interrupted or not is complex and as with the ‘strong’ and ‘weak’ PERSISTIVE (the subject of the next section) is dependent on individual speaker perceptions of the circumstances of each situation. There are various strategies to indicate Persistivity or encode the PERSISTIVE. The aspect marker *-sa-* standing alone or with *solo* encodes PERSISTIVE but *solo* alone indicates Persistivity. There is a further strategy in which a verb such as *ku-chubek-a* (‘to continue’) with persistive meaning is used (*Aktionsart*) and the following examples explore whether particular strategies are applied in either interrupted or uninterrupted scenarios:

(a) **Uninterrupted scenario**

A was cooking and B requested help to which A replies that she will help when the cooking is finished so B returns later and says:

- (4.7) B *Solo* *u-sa-phek-a?*
 CONJ.*still* SC2sg-PERS-cook-FV
 ‘You are still cooking?’

- (4.8) A *Yebo!* *ngi-sa-phek-a*
 INTERJ.*yes!* SC1sg-PERS-cook-FV
 ‘Yes! I am still cooking’

My consultant advised this response could only be used if the cooking had started at an earlier period and was continuing, so this is an instance of *-sa-* encoding an activity in which the intervening period is necessarily uninterrupted.

(b) **Interrupted scenario**

A meets a fellow student who attended classes the previous year and is asked:

- (4.9) B *U-sa-fundz-a* *yini?*
 SC2sg-PERS-*study*-FV INTRG
 ‘Are you still studying?’

- (4.10) A *Yebo!* *ngi-sa-fundz-a*
 INTERJ.yes SC1sg-PERS-*study*-FV
 ‘Yes. I am still studying’

Both scenarios elicit similar responses. It would seem that whether or not the activity is interrupted the PERSISTIVE aspectual marker is appropriate. However during a discussion held with my consultant she advised me that she did not regard studying as an interrupted activity whereas she considered reading a book was interrupted:

- (4.11) A *U-sa-fundz-a* *le-n-cwadzi* *ye-ACCA* *yini?*
 SC2sg-PERS-*study*-FV DP9-9-*book* PC9-ACCA INTRG
 ‘Are you still reading that ACCA book?’

- (4.12) B *Yebo!* *ngi-sa-yi-fundz-a* *le-n-cwadzi* *ye-ACCA*
 INTERJ.yes SC1sg-PERS-OC9-*study*-FV DP9-9-*book* PC9-ACCA
 ‘Yes. I am still reading (it) that ACCA book’

As mentioned above, the above scenarios are subjectively assessed and the PERSISTIVE aspectual marker remains acceptable leaving the position inconclusive but in the next scenario (a greeting and response), while the PERSISTIVE aspect is encoded in (4.14), response (4.15) is also acceptable:

- (4.13) *U-njani?*
 SC2sg-ADV.*how?*
 How are you?

- (4.14) *Ngi-sa-phil-a*
 SC1sg-PERS-*well*-FV
 ‘I am (still) well’

- (4.15) *Ngi-ya-phil-a*
 SC1sg-DIS.PRES-*well*-FV
 ‘I am well’

Response (4.14) would be used if the respondent met the person on a regular basis whereas (4.15) would be appropriate when meeting someone intermittently. The PERSISTIVE aspectual marker is appropriate because the respondent is referring specifically to the last period when the two met (when she was well) and the temporal connection with the present or Speech time (when she remains well). The intervening period was a period with no illness and my consultant was clear that this was the case, i.e. being well was uninterrupted so this is a situation where *-sa-* is only acceptable if the activity in the intervening period is uninterrupted. If the intervening period had been interrupted by illness, or the period between encounters was too long to make a reasonable judgement then expression (4.15) would be appropriate as it does not encode PERSISTIVE aspect and merely refers to the current situation.

Unfortunately this section is inconclusive regarding the intervening period and whether or not different strategies are suited to interrupted or uninterrupted periods. There is evidence to support that in certain uninterrupted situations only *-sa-* is appropriate but further empirical research with a range of PERSISTIVE markers needs to be undertaken. A combined grid (Table 4.3) appears in the final section 4.11 and includes in its analysis examples throughout this chapter.

4.4 The PERSISTIVE in ‘weak’ and ‘strong’ situations

In this section, I explore the idea that the PERSISTIVE encodes both ‘weak’ and ‘strong’ situations, and that different strategies are employed for each.

The PERSISTIVE appears in two contrasting situations, one in which the status quo is maintained (‘weak’) and one that surmounts obstacles presented by external forces which are exerting their influence (‘strong’). Although the examples investigated are few, in view of the multiple strategies available for encoding PERSISTIVE aspect it seems likely that there is not a binary opposition but a pragmatic cline where speakers make a judgment on each individual expression as to where the sense lies. One extreme of the continuum overcomes substantial obstacles, and the other is completely unopposed, with a range of gradation in between.

The following examples illustrate how *-sa-* and other word categories encode or indicate the PERSISTIVE aspect or Persistivity in various situations in which obstructing forces are present or not and whether they are surmounted or not:

- (4.16) *Bé-ngi-zam-ile* *ku-hamb-a* *nge-bhansi*
 PAST-SC1sg-try-DIS.PERF 15-travel-FV ADV.PFX.by means of-9.bus
- len-sha* *kepha* *ngi-sa-hamb-a*
 AC9-AS.new CONJ.but SC1sg-PERS-travel-FV
- nge-tin-yawo* *ku-y-a* *e-m-sebent-ini*
 ADV.PFX.by means of-10-feet 15-go-FV LOC-3-work-LOC.

‘I tried the new bus service but I still walk to work’

This is a ‘weak’ situation so the aspect marker *-sa-* is appropriate as there is no obstacle to prevent the walk to work. The bus service having been tried and found wanting is the causal factor not an obstacle which is preventing the speaker from walking to work as inclement weather might be. This example also illustrates another feature of the PERSISTIVE (its classification as a dual-time period aspect) because the two time periods which *-sa-* links are the times when the speaker walked to work before and after trying the bus service. The disjoint PERFECT form (*-ile*) of *ku-zam-a* (‘to try’) occurs with an INFINITIVE as complement. Temporal adverbs do not preclude the disjoint form but *ku-hamb-a* cannot be classified as such and Z&M state that where an adjunct does appear with the disjoint form the predicate (trying out the new bus service) is emphasized (Ziervogel and Mabuza, 1976: 175). Such a feature (emphasizing the predicate) supports the idea of a continuum as it could be argued that by highlighting that the speaker was trying to get to work by bus and was struggling against external forces, possibly another speaker, with the same scenario would find *-sa-* unacceptable.

- (4.17) *Um-fati* *w-ami* *a-ka-vum-i* *kepha*
 1-wife PC1-PS1sg NEG-SC1-agree-NEG.FV CONJ.but
- ngi-ya-chubek-a* *ku-nats-a*
 SC1sg-DIS.PRES-continue-FV 15-drink-FV

‘My wife disapproves but I still drink’

- (4.19) *I-moto y-ami* *len-sha* *i-f-ile*
 9-car PC9-PS1sg AC9-AS.new SC9-break-STAT.PERF
- ngi-sa-hamb-a* *nge-tin-yawo* *ku-y-a*
 SC1sg-PERS-travel-FV ADV.PFX.by means of-10-feet 15-go-FV
- e-dolobh-eni*
 LOC-5.town-LOC

‘My new car is broken so I am still walking to town’

- (4.20) *I-moto y-ami* *len-sha* *i-f-ile* *ku-nga-ko*²⁹
 9-car PC9-PS1sg AC9-AS.new SC9-break-STAT.PERF 17-ADV.PFX-AP17
- ngi-hamb-a* *nge-tin-yawo* *ku-y-a*
 SC1sg-travel-FV ADV.PFX.by means of -10-feet 15-go-FV
- e-dolobh-eni*
 LOC-5.town-LOC

‘My new car is broken so I am still walking to town’

As *-sa-* encodes ‘weak’ PERSISTIVE, and is not used if an obstacle is being overcome (the ‘strong’ situation) there is a sense of causality rather than impediment with this strategy. In contrast, when an obstacle needs to be overcome, such a sense can be encoded lexically by a suitable verb such as *ku-chubek-a*, as in (4.17) and (4.18) above, and although it has not been confirmed by my limited fieldwork data, it is likely that encoding a ‘weak’ or ‘strong’ situation is not a dichotomy but a continuum dependent on speaker perception. For example, the situation where the speaker’s car had broken down was not strictly an obstacle to be overcome like a violent storm or not having the bus fare, it was a causal factor not a preventative force, but the speaker may perceive it as an obstacle. Lack of money to pay the garage bills, or lack of availability of parts could be obstacles to repairing the car and using it to travel to work. If there is a cline of weakness/strength then speakers will make a judgment on whether to use *-sa-*, *ku-nga-ko*, *ku-chubek-a* or some other strategy in each situation.

²⁹ *Ku-nga-ko* is a construction made up of *ku-* noun class 17, the instrumental formative *-nga-* and the class 17 absolute pronoun *k(h)o(na)*. In its role as enclitic it drops the ‘h’ and the final syllable *-na* (Ziervogel and Mabuza, 1976: 134). The final syllable is referred to as a stabilizing suffix which appears as *-ne* in 1sg, 2sg, 2pl and noun class 1. In all other noun classes it appears as *-na* (Ziervogel and Mabuza, 1976: 44).

As mentioned above a combined grid (Table 4.3) analysing the various strategies adopted appears in the final section 4.11.

4.5 The encoding of PERSISTIVE aspect by *-sa-* > *-se-*

In this section I describe two environments, non-verbal constructions and stative verbs, where the PERSISTIVE aspect marker *-sa-* undergoes phonological change and appears as *-se-* the same surface form as the ALTERATIVE marker. Ambiguity between the PERSISTIVE and ALTERATIVE marker is created as a result and it is a prediction of this analysis that such contemporary uses may indicate that *solo* is taking over the functions of *-sa-* in current siSwati. The position is further confused by the identification of exceptions to the consistent phonological behaviour of both PERSISTIVE and ALTERATIVE markers. Variations in morpheme order and phonological change in stative and dynamic verbs are explored and their semantic and syntactic effects analysed.

In a negative copula non-verbal construction *-se-* remains unchanged and *-sa-* becomes *-se-* which results in ambiguity:

- (4.21) *A-ngi-se-kho*
 NEG-SC1sg-ALT/PERS-ADV.here
 ‘I am no longer here’
 ‘I am still not here’

Example (4.21) is a non-verbal construction in which a spatial adverb *kho(na)* (which reduces to *kho* in this negative construction) has taken the place of the verb as discussed in section 2.4. Like the class 17 absolute pronoun *k(h)o(na)* in its role as enclitic where it drops the ‘h’ and the final syllable *-na*³⁰ (Ziervogel and Mabuza, 1976: 134) *khona* (‘here’) also drops the final syllable *-na* which is referred to as a stabilizing suffix (Ziervogel and Mabuza, 1976: 44). Although *-se-* appears to occupy slot four in (4.21) this is a non-verbal construction and the linear template accommodates and analyses primarily verbal constructions. However, *-sa-* appearing as *-se-* does occupy slot four in statives which appears below as (4.34) but shown here as (4.22).

³⁰ In section 4.4 the construction *ku-nga-ko* (which encodes ‘weak’ PERSISTIVE) appears in (4.20) and is an example of the enclitic’s use.

- (4.22) *Ngi-tawu-be* *ngi-se-lel-e*
 SC1sg-IMM.FUT-*be*-FV SC1sg-PERS-*sleep*.STAT.PERF-FV
 ‘I will still be about to sleep’

When occupying slot four of the linear verbal template, the situation is reversed and the ALTERATIVE marker *-se-* undergoes phonological change to become *-sa-* while encoding negative ALTERATIVE but *-sa-* undergoes no phonological change while encoding negative PERSISTIVE resulting in the ambiguity seen in (4.23):

- (4.23) *A-ngi-sa-nats-i*
 NEG-SC1sg-ALT/PERS-*drink*-NEG.FV
 ‘I no longer drink’
 ‘I still do not drink’

A similar phonological process occurs with positive constructions but examples (4.24) and (4.26) can only be PERSISTIVE as the ALTERATIVE marker could appear word-initially in both instances (see examples and discussion in chapter five generally and section 5.4 specifically). The PERSISTIVE marker *-sa-* can appear word-medially in the conjoint PRESENT (4.24), whereas *-se-* cannot (4.25), while *-sa-* appears as *-se-* in the non-verbal construction (4.26) but does not change semantically.

- (4.24) *Ngi-sa-nats-a*
 SC1sg-PERS-*drink*-FV
 ‘I still drink’

- (4.25) **Ngi-se-nats-a*
 SC1sg-ALT-*drink*-FV
 ‘I now drink’

- (4.26) *Ngi-se-khona*
 SC1sg-PERS-ADV.*here*
 ‘I am still here’

The PERSISTIVE morpheme *-sa-* appears word-medially in the conjoint PRESENT (4.24) above but is unacceptable word-initially (4.27) or word-medially (4.28) in the disjoint PRESENT:³¹

³¹ However see section 5.4 examples (5.52) and (5.53): *se-wu-ya-nats-a* and *a-sa-ya-nats-a* are acceptable and in the noun class 6 form *-se-* becomes *-sa-* in the disjoint form (Ziervogel and Mabuza, 1976: 122).

- (4.27) **Sa-ngi-ya-nats-a*
 PERS-SC1sg-DIS.PRES-*drink*-FV
 ‘I am still drinking’

- (4.28) **Ngi-ya-sa-nats-a* or **ngi-sa-ya-nats-a*
 SC1sg-DIS.PRES-PERS-*drink*-FV SC1sg-PERS-DIS.PRES-*drink*-FV
 ‘I am still drinking’

A possible diachronic explanation is that (4.24) has reduced from a full disjoint form consisting of both *-sa-* and *-ya-* (4.28). The ALTERATIVE marker *-sa-* never appears word-initially and a possible explanation for (4.27) could be that confusion is avoided with *sa-* the possessive concord for class 7 or *sa-* the PAST tense concord for class 7 and first person plural subject concord (SC1pl). Also, aspect markers generally do not occupy slot one although *se-* and *be-* would appear to be exceptions, but see chapters five and six for full analysis of these tense/aspect markers.

According to Z&M (4.29) is ungrammatical:

- (4.29) **Ngi-sa-khona*
 SC1sg-PERS-ADV.*here*
 ‘I am still here’ (Ziervogel and Mabuza, 1976: 52)

However I posit that it can appear and where it does it emphasizes the PERSISTIVE aspect which is probably why both (4.30) and (4.31) produced by my fieldwork encode ‘strong’ PERSISTIVE. During my fieldwork I noticed (4.30) on a poster in a government office (the Registrar-General in Mbabane). This is contrary to the above situation but was judged grammatical by my consultant. The meaning is PERSISTIVE and encodes the ‘strong’ version (see section 4.4) as the speaker has overcome his illness which is not preventing him from working and my consultant was clear the aspectual marker in such a context must be *-sa-* and not *-se-*.

- (4.30) *U-nga-ngi-cosh-i* *e-m-sebent-ini*
 SC2sg-NEG-OC1sg-*chase*-NEG.FV LOC-3-*work*-LOC

ngoba *ngi-ne-HIV.* *Ngi-sa-khona* *ku-sebent-a*
 CONJ-*because* SC1sg-ADV.PFX-9-*HIV.* SC1sg-PERS-ADV.*here* 15-*work*-FV

‘Don’t chase me at work because I have HIV. I am **still** able to work’

- 'I am very tired but I can **still** walk'

(4.32) *A-ngi-sa-nats-i*
 NEG-SC1sg-PERS/ALT-*drink*-FV
 ‘I still do not drink’
 ‘I no longer drink’

(4.33) *Ngi-tawu-b-e* *ngi-sa-pheka*
 SC1sg-IMM.FUT-*be*-FV SC1sg-PERS-*cook*-FV
 'I will still be about to cook'

- Non-verbal constructions behave in a similar way to statives, *khona* ('here') and *ncono* ('better') are states not processes and in such situations *-sa-* becomes *-se-* as seen in (4.26) above and (4.35):

- (4.35) *Ngi-se-ncono*
SC1sg-PERS-RS.better
'I am still better'

When *-sa-* becomes *-se-* in example (4.35) it does not change semantically (i.e. it does not encode ALTERATIVE or indicate temporality ‘I am now better’) so there is phonological change but it is difficult to explain its occurrence. The PERSISTIVE *-sa-* describes a continuing situation (a state), and so in these constructions is semantically redundant. There is no phonological barrier to *-sa-* appearing in the non-verbal construction or the stative as demonstrated in examples (4.30) and (4.31) above where it appears and encodes emphasis:

- (4.36) *Ngi-sa-khona* *ku-sebent-a*
 SC1sg-PERS-ADV.here 15-work-FV
 ‘I am **still** here working’

- (4.37) *Ngi-sa-khona* *ku-hamb-a* *nge-tin-yawo*
 SC1sg-PERS-ADV.here 15-walk-FV ADV.PFX.by-10-feet
 ‘I am **still** here walking’

- (4.38) *Ngi-sa-lel-e*
 SC1sg-PERS-sleep.STAT.PERF-FV
 ‘I am **still** asleep’

The PERSISTIVE *-sa-* cannot act as an auxiliary, unlike the ALTERATIVE *-se-* in the following hypothetical example:

- (4.39) °*Ngi-se* *ngi-khona*
 SC1sg-AUX.ALT SC1sg-ADV.here
 ‘I am now here’

I suggest that the ALTERATIVE *-se-* at one time acted as an auxiliary in such a construction, and that over time the full form reduced to (4.40).

- (4.40) *Ngi-se-khona*
 SC1sg-PERS-ADV.here
 ‘I am still here’

In (4.39) *-se-* is analysed as an auxiliary but as an aspect marker and bound morpheme in the reduced form (4.40). Having reduced the ALTERATIVE was expressed in two forms (4.40) and (4.41):

- (4.41) *Se-ngi-khona*
 ALT-SC1sg- ADV.here
 ‘I am now here’

changing situation (being ill and becoming better) is ALTERATIVE and encoded by word-initial *-se-*. Being well and remaining well is ‘strong’ PERSISTIVE and encoded by *-sa-* (which generally encodes ‘weak’ PERSISTIVE as described in section 4.4) but for phonological reasons in this non-verbal construction *-sa-* becomes *-se-* and this behaviour is investigated further in the next section 4.6.

Simply analysing *-se-* as ALTERATIVE and *-sa-* as PERSISTIVE is an over-simplification when there are frequent instances of phonological change from one to the other. Whilst their basic aspectuality is clear they often switch morphology in certain phonological environments with *-sa-* becoming *-se-* and vice versa and the next section looks at further examples of such change including morpheme order and the encoding of ‘strong’ PERSISTIVE aspect in compound stative verbs.

4.6 The PERSISTIVE and the aspect marker *-se-*

In this section my data reveal that *-se-* can in certain circumstances encode ‘strong’ PERSISTIVE aspect and the examples also illustrate the importance of morpheme order in understanding the complex semantic profiles of the PERSISTIVE and ALTERATIVE aspect markers. A similar process with compound stative verbs where *-se-* is preferred to *-sa-* in order to encode ‘strong’ PERSISTIVE aspect is also analysed.

In (4.47) a Persistent situation is expressed lexically and not by PERSISTIVE aspectual marking:

- (4.47) *Ti-chubek-a* *njani* *ti-fundvwo* *t-akho?*
 SC10-progress-FV ADV.how 10-studies PC10-PS2sg
 ‘How are your studies progressing?’

Responses (4.48) to (4.51) are all acceptable:

- (4.48) *Ti-chubek-a* *ku-hle*
 SC10-progress-FV 17-AS.well
 ‘They are progressing well’

(4.49) *Ti-fundvwo t-ami ti-sa-hamb-a kahle*
 10-studies PC10-PS1sg SC10-PERS-go-FV ADV.well
 ‘My studies are still going well’

(4.50) *Ti-fundvwo t-ami ti-se-kahle*
 10-studies PC10-PS1sg SC10-PERS-ADV.well
 ‘My studies are still (going) well’

(4.51) *Ti-fundvwo t-ami ti-kahle*
 10-studies PC10-PS1sg SC10-ADV.well
 ‘My studies are (going) well’

The required response can be expressed using *ku-chubek-a* (‘to continue, progress’) (4.48), the PERSISTIVE aspectual marker (4.49), the aspect marker *-se-* (4.50) or a simple copula construction (4.51). The aspect marker *-se-* encodes PERSISTIVE in (4.50) which is usual with non-verbal constructions and has been described above, but the attested examples (4.52) to (4.56) consist of verbal constructions:

(4.52) *Si-se-tawu-k-os-a yini?*
 SC1pl-PERS-IMM.FUT-OC15-roast-FV INTRG
 ‘Are we still having a BBQ?’

The literal sense of (4.52) is ‘We will still roast it (i.e. *ku-dla* ‘the food’)?’ The question is asked on the day when BBQs are usually held, so there is an implied obstacle to overcome. This is the ‘strong’ PERSISTIVE as described in section 4.4 but expressed by *-se-*.

(4.53) *Solo si-se-tawu-k-os-a yini?*
 CONJ.still SC1pl-PERS-IMM.FUT-OC15-roast-FV INTRG
 ‘Are we **still** having a BBQ?’

This expression (4.53) is similar to (4.52) but is asked on a rainy day which is an explicit obstacle. *Solo* is used for emphasis but the ‘strong’ PERSISTIVE is again expressed by *-se-*.

(4.54) *U-se-ta-li-fundz-is-a yini leli-banga?*
 SC2sg-PERS-IMM.FUT-OC5-learn-CAUS-FV INTRG DP5-class
 ‘Are you still going to take the class?’

The sense of (4.54) is that the lecturer has a sore throat which is an obstacle preventing her from taking the class and so *-se-* encodes ‘strong’ PERSISTIVE.

- (4.55) *U-se-tawu-ku-y-a* *yini e-m-ngcwab-eni?*
 SC2sg-PERS-IMM.FUT-OC15-go-FV INTRG LOC-3-funeral-LOC
 ‘Are you still going to the funeral?’

The sense of (4.55) is that the mourner is dressed inappropriately which will prove to be an obstacle to her attendance so ‘strong’ PERSISTIVE is encoded by *-se-*.

- (4.56) ‘*Yebo!* *ngi-se-tawu-ku-y-a*
 INTERJ. SC1sg-ALT-IMM.FUT-OC15-go-FV
 ‘Yes, I will still go’

This is the affirmative reply to (4.55), the mourner has overcome the problem with her inappropriate dress and will attend the funeral which is an example of the ‘strong’ PERSISTIVE.

Examples (4.52) to (4.56) demonstrate that *-se-* can encode PERSISTIVE aspect and all have been classified as ‘strong’. It is surprising that the PERSISTIVE aspect marker *-sa-* encodes ‘weak’ PERSISTIVE, especially when the aspect marker *-se-* can encode both ALTERATIVE and ‘strong’ PERSISTIVE. A possible explanation for the appearance of *-se-* is that it is PERSISTIVE but has undergone phonological change. In each example *-se-* is followed by *-ta-* which is the IMMEDIATE FUTURE marker so it may be that *-sa-* became *-se-* because of the latent (*i*) where *a-* becomes *e-* in the case of monosyllabic verbs such as (*i*)*ta* (‘come’) as described in section 2.2.2.

- (4.57) *U-se-t-a* *yini?*
 SC2sg-PERS-come-FV INTRG
 ‘Are you still coming?’

If this were the case then there should be examples of *-sa-* appearing in TAM slot four of the verbal template before consonants where there is no latent *i-*. If examples (4.52) to (4.56) were REMOTE FUTURE with *-yawu-* as tense marker, this would be the case but as (4.58) confirms *-se-* is still used and encodes PERSISTIVE:

(4.58) <i>Ngi-hamb-e</i>	<i>nga-y-a</i>	<i>e-dolobh-eni</i>
SC1sg- <i>travel</i> -FV	REM.PAST.SC1sg- <i>go</i> -FV	LOC-5. <i>town</i> -LOC
<i>nga-ba-shiy-a</i> ³²		<i>ba-se-yawu-vun-a</i>
REM.PAST.SC1sg-OC2- <i>leave behind</i> -FV		SC2-PERS-REM.FUT- <i>harvest</i> -FV

‘I went to town and left them still harvesting’

Example (4.58) is more difficult to classify as ‘strong’ or ‘weak’ as the uncertainty encoded by REMOTE FUTURE (rather than temporal proximity) and the arduous work involved may classify as ‘strong’ but as there is no apparent obstacle to the activity I classify as ‘weak’.

An alternative explanation for *-se-* encoding ‘strong’ PERSISTIVE is that the situations are not perceived as persisting at all. If the speaker’s expectation is that the obstacle will not be overcome then the outcome would not be a continuing situation but a changing one. For example when the speaker asked whether a BBQ was ‘still to be held’, it may be that because of the inclement weather, he did not expect it to take place. In English if a negative outcome is expected then the question would be phrased as ‘is the BBQ no longer to be held?’ It may be that in the above examples, by using *-se-* such a negative expectation (ALTERATIVE) was expressed which is termed counter-expectation. The counter-expectational is expressed by a speaker when he expresses beliefs contrary to his own or an interlocuter’s regarding the states of affairs under discussion and can be summarized as:

(4.59) U₂ is not expected given U₁

Counter-expectation is a matter of point of view and is therefore an example of subjectivity of language (Traugott, 1999: 178). This term is potentially confusing as different functions and meanings are attributed to it by different authors. For descriptions of its use in other contexts see sections 4.7 and 8.2.

Conversely if the obstacle was expected to be overcome a different strategy would be adopted. The situation would still be a ‘strong’ one so *-sa-* would not be appropriate but

³² The use of the REMOTE PAST markers following conjoint PERFECT and the REMOTE FUTURE marker is interesting as the sense is not one of remote temporal proximity, indeed the harvesting is taking place at the same time as the (recent) visit to town. I would posit that what is indicated is uncertainty. The speaker was no longer present and so had no way of knowing how long the harvesting would continue. Semantic criteria for the use of FUTURE markers are discussed in section 9.3.1.

perhaps *solo* or *ku-chubek-a* would send the correct signal of the speaker's expectations (indicating 'strong' Persistivity as neither *solo* nor *ku-chubek-a* are aspectual markers). If this counter-expectational explanation is correct it would appear that there is only 'weak' PERSISTIVE encoded by *-sa-* and that 'strong' Persistivity is indicated lexically when a positive outcome is expected (with *ku-chubek-a* for example) and ALTERATIVE aspect is encoded by *-se-* when a negative outcome is expected. As mentioned previously a combined grid (Table 4.3) analysing the strategies adopted to encode the weak and strong situations and the two types of situation in the intervening period appears in the final section 4.11.

Examples (4.60) and (4.61) express the ALTERATIVE and use *-se-* with IMMEDIATE FUTURE tense markers, but in word-initial position:

(4.60) *Nyalo* *se-ngi-tawu-fundz-a* *e-Landani*
 ADV.now ALT-SC1sg-IMM.FUT-study-FV LOC-London
 'I will now study in London'

(4.61) *Se-wu-takw-ent-a-njani* *nyalo*
 ALT-SC2sg-IMM.FUT-do-FV-INTRG ADV.now
 'What will you do now?'

In IMMEDIATE FUTURE tense constructions, as with other tenses, the ALTERATIVE *-se-* appears as prefixal aspect marker but when it encodes the 'strong' PERSISTIVE (or ALTERATIVE) it appears word-medially.

In the analysis that follows I provide further evidence that *-se-* can encode PERSISTIVE aspect. Example (4.62) is FUTURE IN THE FUTURE and encodes INCEPTIVE aspect, i.e. the event is about to take place, and *-sa-* encodes PERSISTIVE aspect and the sense that being about to sleep relates back to an earlier time point when sleep was also imminent. I show the form with a question mark as my consultant advises that *-se-* would appear not *-sa-* to encode this sense:

(4.62) *?Si-tawu-b-e* *si-sa-tawu-lal-a*
 SC1pl-IMM.FUT-be-FV SC1pl-PERS-IMM.FUT-sleep-FV
 'We will still be just about to sleep'

In example (4.63) which has prefixal *be-* (tense and aspect marker) in addition to *-be* (auxiliary), CONDITIONAL aspect is encoded so the activity occurs in the past and the outcome is negative, i.e. sleeping is prevented from happening for some reason. Example (4.63) is FUTURE IN THE PAST and *-sa-* encodes PERSISTIVE with the sense that sleep relates back to an earlier time point when it was also imminent, but did not take place. I again show the form with a question mark as my consultant advises that *-se-* would appear not *-sa-*:

- (4.63) ?*Be-si-tawu-b-e* *si-sa-tawu-lal-a*
 PAST-SC1pl-IMM.FUT-*be*-FV SC1pl-PERS-IMM.FUT-*sleep*-FV
 ‘We would still have just been about to sleep’

In each of the forms with a PERSISTIVE marker (4.62) and (4.63) my consultant advised that while the form was acceptable with *-sa-* it did not ‘sound right’ and would not be used. She advised that *-se-* would be substituted but whichever of the aspect markers was used the sense was unchanged.

It has been shown in this last section that *-se-* can encode PERSISTIVE aspect and this is supportive of the prediction that the functions of *-sa-* are being taken over by other morphemes (*solo* and *-se-*). These findings raise another issue; is the aspect marker *-se-* or is it *-sa-* undergoing phonological change where *-se-* is an allomorph of *-sa-*? Alternatively, if there is a change of meaning which allows *-sa-* (appearing as *-se-*) to encode ‘strong’ rather than ‘weak’ PERSISTIVE, it is not phonological, but morphological change.

It is difficult to draw firm conclusions from the data described in sections 4.5 and 4.6. Simply analysing *-se-* as ALTERATIVE and *-sa-* as PERSISTIVE is an over-simplification when there are frequent instances of phonological change from one to the other. Whilst their basic aspectuality is unequivocal they often switch morphology in certain phonological environments with *-sa-* becoming *-se-* and vice versa. Sometimes phonological change occurs and at other times it does not. The various environments and situations have been identified and examples provided and described. Unfortunately it has not been possible to formulate a universal and satisfactory explanatory hypothesis which accounts for the apparently arbitrary behaviour of these two aspect markers.

4.7 Negation, aspectuality and the counter-expectational in siSwati

In a discussion of the encoding of ‘no longer’ and ‘not yet’ Nurse identifies several problems concerning negation which I have attempted to address in my analysis in sections 2.2.3.2 and 5.5.5 and which I also investigate in this section (Nurse, 2008: 196).

Nurse discusses negation extensively as well as the PERSISTIVE (Nurse, 2008: 145) and he also covers minor categories (aspect or tense) in which he describes several Bantu aspects including the PROXIMATIVE, counter-expectation and evidential (PERFECTIVE) (Nurse, 2008: 165). He states that there is a formal and functional connection between the negative (‘not yet’/counter-expectational which is negative ALTERATIVE Exclusivity in my analysis) and the PERSISTIVE and he contrasts the SITUATIVE and PERSISTIVE. The SITUATIVE describes an ongoing incomplete situation, a canonical IMPERFECTIVE and to confuse matters SITUATIVE is the term applied by Taljaard and Bosch to the PARTICIPIAL mood (Taljaard et al., 1991: 123). Nurse connects the PERSISTIVE with the SITUATIVE as both aspects represent ongoing and incomplete situations and he observes that although some authors maintain it is inaccurate to describe negative equivalents out of context because of the availability of multiple negation strategies (Fleisch, 2000), Bantu speakers (including siSwati) when given an affirmative and asked for a negative equivalent, reply without hesitation and this was my experience during my fieldwork interviews. Nurse also mentions that authors of grammars regularly give affirmative/negative pairings³³ which is the case in the siSwati and isiZulu literature (Nurse, 2008: 196). In this thesis I have used the terms positive which is unmarked and negative which is marked to identify opposing polarity.

Nurse uses the term ‘counter-expectation’ as defined by Schadeberg whose view differs from Comrie who explained the term in purely temporal terms in which a situation did not hold in the past and does not hold in the present (Comrie, 1985), whereas Schadeberg sees the term relating only to the present but may hold in the future and denies the expectation not of the speaker but the addressee (Schadeberg, 1990). In his analysis Nurse describes the forms as ‘not yet/counter-expectational’ (Nurse, 2008: 165).

³³ Nurse's affirmative I believe is not synonymous with the term positive. The term implies agreement with something that occurred previously, an instruction or question perhaps, whereas positive is a more neutral term merely representing the opposite of negative.

Nurse observes that some authors consider that the PERSISTIVE and ANTERIOR are problematic (Nurse, 2008: 196) and that both are presented as isolated negatives with no affirmative equivalent which seems not to be the case in siSwati although it is likely that Nurse was referring to morphologically encoded aspects which would not exclude the possibility of appropriate negation of expressions using alternative strategies including lexical means. In section 2.2.3.2 I have posited that the EXCLUSIVE is a sub-sense of the ALTERATIVE referred to as Exclusivity and in the negative this sub-sense is encoded by *se-nga-ka* ('not yet'). In section 5.5.1 I propose that the positive equivalent could be *e-ku-gcin-eni* ('at last') or *-se-* ('already'). The problem with this analysis is that *se-nga-ka* is not a true negative, the negativity being a question of timing rather than polarity, i.e. the sense is of something not happening but eventually it will. Nurse connects the sense of 'not yet' with the PERSISTIVE and not the ALTERATIVE (which is unsurprising as it is my term) or the INCEPTIVE. In the positive PERSISTIVE the sense is of 'still do' and in the negative 'still to do' which implies 'have not done yet' (Nurse, 2008: 147).

Example (4.64) illustrates that the negative PERSISTIVE also has an Exclusivity sense.

- (4.64) *Be-se* *ngi-nga-sa-nats-i*
 PAST-AUX.ALT SC1sg-NEG-PERS-*drink*-NEG.FV
 'Then I still was not drinking'
 'Then I was still to be drinking'

The two morphemes *-sa-* and *-se-* appear in the same expression but the constraint resulting from them being in complementary distribution is not a problem as they are performing different roles. *Se-* can act as an auxiliary and/or aspect marker while *-sa-* is restricted to its role as aspect marker. In a consultant review (4.64) was said to have the sense of (after stopping) 'I am drinking again' (a positive outcome). It was observed above that in the positive PERSISTIVE the sense is of 'still do' and in the negative 'still to do' which implies 'have not done yet' (Nurse, 2008: 147). It appears that my consultant may have been encoding this alternative sense of the negative PERSISTIVE, 'Then I was still to be drinking' (an eventual positive outcome).

Nurse makes the point that 'already', 'still' and 'not yet' are not well understood in Bantu languages and that European languages encode these senses with adverbial constructions

whilst they are grammaticalized in many Bantu languages. His explanation for the relative obscurity of the PERSISTIVE is that it is rarely grammaticalized in European languages, but it is in 56% of his matrix Bantu/Bantoid languages (Nurse, 2008: 200).

According to Nurse there are four relationships between past and present (Nurse, 2008: 197):

	PAST	PRESENT
(1)	Obtained in past	Continues to obtain
(2)	Obtained in past	No longer obtains
(3)	Did not obtain in past	Does not obtain now
(4)	Did not obtain in past	Does not obtain now (completion of situation extended into future)

Nurse describes (1) and (2) as PERSISTIVE and (3) and (4) as (possible) negative ANTERIORS and there is a fifth relationship which is not encoded in English or Swahili (his exemplar Bantu language in this instance):

(5)	Did not obtain in past	Does obtain now.
-----	------------------------	------------------

He states that the Progressive indirectly encodes this relationship which in my siSwati analysis is not the situation. I would posit that the Progressive describes a continuing situation in a single time period which may or may not be present. It does not refer back to or link an anterior time period as (5) suggests. This contrasts with the PERSISTIVE which does link two separate time periods in which the same activity is taking place or not. In my analysis *-se-* is one strategy for encoding the ALTERATIVE which can be described as in (5) above as it encodes either a polarity or activity switch. My analysis categorizes the five relationships plus a sixth as follows:

	PAST	PRESENT	CATEGORY	COMPLETION of situation	
(1)	POSITIVE	POSITIVE	PERSISTIVE		<i>solo/-sa-</i>
(2)	POSITIVE	NEGATIVE	ALTERATIVE		<i>-se- + NEG tense</i>
(3)	NEGATIVE	NEGATIVE	PERSISTIVE		<i>-sa- + NEG tense</i>
(4)	NEGATIVE	NEGATIVE	ALTERATIVE*	IN FUTURE	<i>-se-nga-ka-</i>
(5)	NEGATIVE	POSITIVE	ALTERATIVE		<i>-se-</i>
(6)	NEGATIVE	POSITIVE	ALTERATIVE*	FROM PAST	<i>ekugcineni / -se-</i>

Table 4.1 Relationships between past and present in siSwati (*Exclusivity sense)

In the above table I have included the canonical siSwati morphemes and adverbials that encode the relevant aspects as a more restricted analysis of tense and aspect only recognizes morphologically encoded forms but such a view excludes *solo* ('still') and *ekugcineni* ('at last') and their omission would result in an incomplete analysis of the roles that the dual-time period aspects play in siSwati aspectuality.

Nurse claims that Bantu languages have a two-way lexical split (Nurse, 2008: 200). They distinguish only between 'not at any time in the past' and 'not in the past but might in the future'. Whilst his remarks are not directed at a specific language (in this section there are examples from seven other Bantu languages) siSwati does encode morphologically three distinctions:

(4.65) *A-si-ka-dl-i*
 NEG-SC1pl-NEG.PERF-*eat*-NEG.FV
 'We have not eaten'

(4.66) *A-si-se-ka-dl-i*
 NEG-SC1pl-ALT-NEG.PERF-*eat*-NEG.FV
 'We still have not eaten'

(4.67) *A-si-se-nga-ka-dl-i*
 NEG-SC1pl-ALT-NEG-NEG.PERF-*eat*-NEG.FV
 'We have not yet eaten'

Nurse's view is that there is a systemic imbalance in the Bantu languages as '(not) yet' negatives seem to have no affirmative form but I have posited that in siSwati there is such a

positive construction, possibly two (the temporal locative *ekugcineni* and *-se-*). The following examples which have been adapted from Nurse illustrate that the PERSISTIVE can be positive or negative (4.68) and (4.69), but *a-si-sa-ba-tseng-i bo-bhanana* is not the negative of just the PERSISTIVE (4.69) but also the ALTERATIVE (4.71) (Nurse, 2008: 146):

- | | | | |
|--------|--|--------------------------------|---------------------|
| (4.68) | <i>Si-sa-ba-tseng-a</i>
SC1pl-PERS-OC2a-buy-FV
'We still buy bananas' | <i>bo-bhanana</i>
2a-banana | POSITIVE PERSISTIVE |
| (4.69) | <i>A-si-sa-ba-tseng-i</i>
NEG-SC1pl-PERS-OC2a-buy-NEG.FV
'We still do not buy bananas' | <i>bo-bhanana</i>
2a-banana | NEGATIVE PERSISTIVE |
| (4.70) | <i>Se-si-ba-tseng-a</i>
ALT-SC1pl-OC2a-buy-FV
'We now buy bananas' | <i>bo-bhanana</i>
2a-banana | POSITIVE ALTERATIVE |
| (4.71) | <i>A-si-sa-ba-tseng-i</i>
NEG-SC1pl-ALT-OC2a-buy-NEG.FV
'We no longer buy bananas' | <i>bo-bhanana</i>
2a-banana | NEGATIVE ALTERATIVE |

My analysis of these examples is:

- (4.68) Continuation of an activity/action (POS>POS)
 (4.69) Continuation of inactivity/inaction (NEG>NEG)
 (4.70) Change of activity/action (NEG>POS)
 (4.71) Change of activity/action (POS>NEG)

This analysis has the benefit of the negative ALTERATIVE and negative PERSISTIVE being semantically close as both have an eventual negative outcome, but different anterior polarity. The PERSISTIVE is quite different from the PROGRESSIVE and can encode more than one type of situation ('weak' and 'strong'). It is extensive in its use not being restricted to Speech time and productive in being able to co-occur with other aspects.

To summarize, it is an over-simplification to assume that there are always simple, opposing negative and positive polarities in all tenses and aspects. In siSwati there are multiple negation strategies involved, both lexical and morphological. Negation can be a matter of

timing (as seen with *se-nga-ka* ('not yet') where a positive outcome is eventually expected) as well as strict polarity and the phonological changes undergone by the aspectual markers also increase complexity. A major problem with negation and aspectuality lies with the counter-expectational ('not yet') which highlights the issue of timing rather than strict polarity.

By counter-expectational in this context I would include such constructions as *se-nga-ka*, the negative ALTERNATIVE Exclusive and the negative PERSISTIVE which have the senses of 'not yet' and 'still to be' respectively where the outcome is expected to eventually occur and which is the definition described by Nurse above. Traugott defines the term differently from Nurse as meaning that the outcome is the opposite to that which the speaker or interlocutor expects and the term is used in that sense in section 4.6 (Traugott, 1999, Nurse, 2008) in describing the 'strong' PERSISTIVE (or ALTERNATIVE) encoded by *-se-*.

In siSwati there are multiple strategies for encoding the counter-expectational; the negative ALTERNATIVE Exclusivity sub-sense (*se-nga-ka*), the negative PERFECT and the negative PERSISTIVE ('still to do'). I propose a lexical positive antonym (*e-ku-gcin-eni*) to the negative ALTERNATIVE Exclusivity sense (*se-nga-ka*) and suggest that by including lexical strategies many of the problems with negation resulting from gaps in the morphological paradigms can be resolved. I would also assert that analysing the ALTERNATIVE aspect as a dual-time period aspect which encodes a polarity or activity switch makes a contribution to resolving issues of negation. Finally I have touched on the comparative difficulties arising when European languages negate with adverbial constructions while Bantu languages more often encode negation morphologically.

4.8 The PERSISTIVE and stative verbs

In this section I look at stative verbs and their relationship with the PERSISTIVE aspect marker *-sa-*. I introduce the Vendler classifications of situation types that clarify some of the semantic issues surrounding stative situations and Progressivity (Vendler, 1967). The tense shift in stative verbs found in siSwati and another language is analysed (Tuwali (Harley, 2008) is described as a typical example). The relationship between the STATIVE

PERFECT and Progressivity is analysed when the aspect marker *-sa-* is categorised as PERSISTIVE rather than Progressive.

The stative which describes a continuous state is similar in that respect to the PERSISTIVE aspect which indicates continuity.³⁴ Example (4.72) is STATIVE PERFECT without a PERSISTIVE marker and it shows the tense shift of this form which encodes PRESENT tense and (4.73) demonstrates how the PERSISTIVE aspect marker *-sa-* can encode a continuous (uninterrupted) situation:

(4.72) *Si-lel-e*
 SC1pl-STAT.PERF.sleep-FV
 ‘We are asleep’

(4.73) *Si-sa-lel-e*
 SC1pl-PERS-STAT.PERF.sleep-FV
 ‘We are still asleep’

Statives can indicate continuity in a single time period but in (4.73) PERSISTIVE aspect is encoded in addition to the continuity which is inherently part of the stative sense. In both examples a continuous state is described, but only (4.73) explicitly connects two separate time periods and encodes the fact that sleep was taking place at both and uninterruptedly during the intervening period and this is achieved by the combination of STATIVE PERFECT tense/aspect and the PERSISTIVE aspect marker. Dynamic and stative verbs differ regarding this intervening period:

(4.74) *U-sa-fundz-a*
 SC2sg-PERS-read-FV
 ‘You are still reading’

Example (4.74) allows for an interruption in the activity as described in section 4.3 but (4.73) implies that sleep has been uninterrupted. The next examples demonstrate a similar situation with a FUTURE tense:

³⁴ To some authors the CONTINUOUS is an aspect synonymous with PROGRESSIVE and my text convention would require that the sense of that aspect which had not grammaticalized would appear as Continuity. However my intention in this section is to avoid any direct linkage with the PROGRESSIVE or CONTINUOUS so I show continuity without a capital letter as it is simply a common feature indicated by statives and PERSISTIVE aspect (Bybee et al., 1994: 127).

- (4.75) *Si-tawu-b-e* *si-l-el-e*
 SC1pl-IMM.FUT-*be*-FV SC1pl-STAT.PERF.*sleep*-FV
 ‘We are about to be asleep’
- (4.76) *Si-tawu-b-e* *si-sa-l-el-e*
 SC1pl-IMM.FUT-*be*-FV SC1pl-PERS-STAT.PERF.*sleep*-FV
 ‘We are still about to be asleep’

Both examples are compound tenses (INCEPTIVE aspect and FUTURE IN THE PAST) but (4.76) demonstrates how the PERSISTIVE aspect marker *-sa-* can connect two separate time periods and encode an uninterrupted situation. Example (4.75) indicates a continuous state (sleeping) which is expected to be taking place in the future while (4.76) indicates a state (sleeping) that is expected to be continuing at some time in the future and refers to an anterior time when the same expectation prevailed (PERSISTIVE). Nurse’s definition of PERSISTIVE is of a past event which is continuing up to the current Speech time (Nurse, 2008: 145) although I would maintain that the implicature of (4.73) and (4.76) is that the speaker will sleep and eventually awaken posterior to Speech time.

With statives Habituality can be indicated which also entails a continuous uninterrupted process and means that the speaker is sleeping regularly as illustrated in example (4.77):

- (4.77) *Ngi-sa-l-el-e*
 SC1sg-PERS-*sleep*.STAT.PERF-FV
 ‘I am still sleeping’

This expression entails that in the past the speaker suffered from insomnia and the two periods that are linked are the time of curing the insomnia and Speech time and it is this period of not suffering from insomnia which is uninterrupted. Example (4.77) encodes PERSISTIVE aspect but the context will indicate Habituality as this is not an aspect which has grammaticalized in siSwati.

The semantics of the stative can be better analysed using Vendler’s terms than being described as Progressive or not which was the system adopted during my interview program. Vendler mapped the semantic distinctions carried by verbs and verb phrases into a system of four situation types: (1) states, (2) activities (unbounded processes), (3) accomplishments (bounded processes) and (4) achievements (point events) (Vendler,

1967). Semelfactive was later added by Smith which distinguished an atelic point event without the outcome of a new state from one with (achievement) (Smith, 1991).

Semelfactives when used in a durative context can give rise to an iterative interpretation (Saeed, 1997: 114). With the stative interview pictograms there were three captions but Vendler's classifications are more appropriate: 'sleep' (accomplishment) (non-Progressive), 'asleep' (state) (non-Progressive) and 'sleeping' (activity) (Progressive) (Vendler, 1967: 97-121).

(4.78) *Ngi-lél-e*
 SC1sg-STAT.PERF.sleep-FV
 'I sleep, I am asleep'

(4.79) *Ngi-sá-lél-e*
 SC1sg-PERS-STAT.PERF.sleep-FV
 'I am (still) sleeping'

It is an assertion of this analysis that Progressive is not grammaticalized in siSwati but (4.79) appears to conflict with this position as a result of the presence of *-sa-*. However, the marker *-sa-* encodes PERSISTIVE and with Vendler's classification (4.79) is classified as an activity (not Progressive) so the presence of *-sa-* is unproblematic.

The following fieldwork example (4.80) reveals the disjoint PRESENT of *ku-lal-a* has a dynamic sense ('going to sleep') not a stative sense of an imminent event ('about to sleep') so it appears that *ku-lal-a* means 'to fall asleep' or 'go to sleep' in a dynamic sense, 'to be asleep' when stative and 'to be sleeping' between two separate time points when stative with the PERSISTIVE marker present:

(4.80) *Ngi-ya-lal-a*
 SC1sg-DIS.PRES.sleep-FV
 'I am going to sleep'

Example (4.81) is IMPERFECTIVE encoded by the aspect marker *be-* but (4.82) and (4.83) are PERFECTIVE encoded by the STATIVE PERFECT and the REMOTE PAST.

(4.81) *Lungile a-be-lal-a*
 1a.Lungile SC1-PAST.sleep-FV
 'Lungile was sleeping' (activity)

- (4.82) *Lungile a-be-sa-lél-e*
 1a.*Lungile* SC1-PAST-PERS-*sleep*.STAT.PERF-FV
 ‘Lungile was asleep’ (state)
- (4.83) *Lungile wa-lal-a*
 1a.*Lungile* REM.PAST.SC1-*sleep*-FV
 ‘Lungile slept’ (accomplishment)

The internal structure of the event is unbounded in (4.81) which is stative but (4.82) and (4.83) are complete, bounded events and are dynamic so these examples suggest that the verb *ku-lal-a* (‘to sleep’) is not inherently stative (see (4.80) above). A stative situation is only encoded when the STATIVE PERFECT form is present as in example (4.82). Without the PERSISTIVE aspect marker the sense refers to the state of sleeping but as a contemporaneous event and in order to encode the sense of an extended state i.e. a period of sleep that extended without interruption between two separate time periods, then the PERSISTIVE aspect marker is required.

Temporality of statives is distinctive in comparison with dynamic verbs as evidenced by the tense shift which displays a step-down pattern i.e. PAST > PRESENT etc.

- (4.84) *Ngi-lél-e*
 SC1sg-*sleep*.STAT.PERF-FV
 ‘I am asleep’

Tense shift is a phenomenon seen in other Niger-Congo languages. Harley observes it in Tuwali which is a Kwa language with about 11,000 speakers in southern Ghana on the Togo border in the Volta region (Harley, 2008: 306). He states that the PERFECTIVE cannot be equated with past time reference, although this is the default for activity verbs. The default interpretation for state verbs is PRESENT tense:

- (4.85) *ε-waa*
 3sg-*be.lying down*
 ‘He is lying down’

This is called by Welmers the ‘factative effect’ a term attributed to him by Harley (Welmers, 1973: 346). This tense shift occurs in siSwati and is seen in both stative verbs and the STATIVE PERFECT forms of dynamic verbs and it could be said that the default interpretation for state verbs is PRESENT tense. It is the inherent continuity of the stative

which contributes to the explanation for the tense shift seen in STATIVE PERFECT expressions in dynamic verbs (4.86) as well as stative verbs (4.87):

(4.86) *Ngi-jabul-ile*
 SC1sg-*to be happy*-STAT.PERF
 ‘I am happy’

(4.87) *Ngi-lel-e*
 SC1sg-*sleep*.STAT.PERF-FV
 ‘I am asleep’

With a PAST tense meaning (‘I was happy/asleep’) Alterativity is in focus, i.e. ‘I was happy but now I am not’ and ‘I was asleep but now I am awake’ but by shifting to the PRESENT tense in examples (4.86) and (4.87) the sense of continuity in the stative is foregrounded.

Finally I review the relationship between the PERFECT and Progressive which can be clarified when the aspect marker *-sa-* is analysed as PERSISTIVE rather than PROGRESSIVE. Z&M state that when *-sa-* is used with a PERFECT it cannot be Progressive but must be stative (Ziervogel and Mabuza, 1976: 193):

(4.88) *U-sa-hamb-ile*
 SC1-PERS-*travel*-STAT.PERF
 ‘He is still away’

So according to Z&M (4.88) cannot have the sense of ‘He has still been travelling’ as ‘being away’ is a state. However, in my analysis the stative undergoes a tense shift from PAST to PRESENT and *-sa-* does not encode Progressive but PERSISTIVE so the one form encodes PERSISTIVE stative, PERFECT and PERFECT Progressive. The Progressive sense is indicated contextually so this analysis does not conflict with the assertion that Progressive is not morphologically encoded in siSwati.

(4.89) *U-sa-hamb-ile*
 SC1-PERS-*travel*-STAT.PERF/PERF

‘He is still away’	(a)	PERSISTIVE STATIVE
‘He has still travelled’	(b)	PERSISTIVE PERFECT
‘He has still been travelling’	(c)	PERSISTIVE PERFECT Progressive

Example (4.89) can have any one of the three meanings shown and which one will be decided contextually. With the PAST tense marker *be-* and PERFECT tense/aspect the PLUPERFECT is encoded:

(4.90) *Be-ka-sa-hamb-ile*

PAST-SC1-PERS-*travel*-STAT.PERF/PERF

- | | | |
|--------------------------------|-----|-----------------------------------|
| 'He was still away' | (a) | PERSISTIVE PAST STATIVE |
| 'He had still travelled' | (b) | PERSISTIVE PLUPERFECT |
| 'He had still been travelling' | (c) | PERSISTIVE PLUPERFECT Progressive |

As with (4.89) the sense of (4.90) will be decided contextually, but as observed previously the relative tenses in siSwati have been difficult to analyse as speakers seem to be more concerned with temporal proximity than shifts in Reference time.

In this section I have looked at the relationship between PERSISTIVE aspect marker *-sa-* and the stative and introduced the Vendler classifications of situation types that resolve some of the semantic difficulties surrounding stative situations and Progressivity (Vendler, 1967). I have looked at the shift in tense seen in statives and the STATIVE PERFECT in dynamic verbs. Finally I have reviewed the confusing relationship between the stative, PERFECT and Progressive which is clarified when the aspect marker *-sa-* is categorised as PERSISTIVE rather than Progressive.

4.9 The 'weak' and 'strong' PERSISTIVE and PERFECTIVE compound tenses

In this section I look at several issues that arise from the PERFECTIVE compound tenses when they display Persistivity sense or PERSISTIVE aspect. First, the aspect marker *-sa-* does not normally encode 'strong' PERSISTIVE and the examples in this section show that *solo* is used in such situations (and so should be described as indicating 'strong' Persistivity). Second, the PERSISTIVE connects two separate time periods which can range from the past to the future and I demonstrate in this section that PERSISTIVE aspectuality is not necessarily restricted to Speech time. Third, in (4.92) to (4.96) below the target sense indicated that the activity had current relevance but in each case the PERFECT tense/aspect was avoided. In chapter seven I suggest that a possible explanation for such avoidance is

the greater salience of change over continuity in siSwati temporal cognition, but in this section propose an alternative view.

As stated above, Nurse describes the PERSISTIVE as encoding a situation that has held continuously since an implicit or explicit point in the PAST up to the time of speaking but in my analysis for siSwati I do not restrict the PERSISTIVE to the PAST tense ‘up to the point of speaking’ (Nurse, 2008: 145). In (4.91) the activity took place before Speech Time (having begun at an unspecified anterior point) and that time period is linked to an explicit posterior point (after the results of the examination). Although *solo* cannot encode PERSISTIVE aspect it does indicate a sense of Persistivity in (4.91) and (4.92).

- (4.91) *Ngi-tawu-b-e* *solo* *ngi-gijim-a* *emva*
 SC1sg-IMM.FUT-*be*-FV CONJ.*still* SC1sg-run-FV LOC.ADV.*after*

 kwe-lu-hlolo
 PC15-11-examination

‘I will still be running even after the medical test results (examination)’

In (4.92) the activity will continue after Speech Time (having begun at an unspecified anterior point) until receipt of the test results and then for an indeterminate posterior period. Thus two separate time points are linked (before and after receipt of the results).

- (4.92) *Noma* *ngabe* ³⁵ *ku-ne-lu-hlolo*
 CONJ.*even* CONJ.*rather* 15-ADV.PFX-11-examination

 ngi-tawu-b-e *ngi-solo* *ngi-gijim-a*
 SC1sg-IMM.FUT-*be*-FV SC1sg-AUX.*still* SC1sg-run-FV

‘Regardless of the medical test results (examination) I will still be running’

The ‘strong’ and ‘weak’ situations encoded by the PERSISTIVE were described in section 4.4. Both the above examples are ‘strong’ situations and so *-sa-* has not been used (the speaker is overcoming the obstacle of a painful knee) and in neither example is there a constraint that Persistivity refers to the activity only up to Speech time (S).

³⁵ These two conjunctions combine to achieve the sense of ‘regardless’ and *ngabe* should not be confused with auxiliary verb described in section 6.6.

Examples (4.93) to (4.95) display a preference for *solo* as *-sa-* which encodes ‘weak’ PERSISTIVE is not appropriate in these ‘strong’ situations. Also the sense of current or Reference time relevance (running took place despite an injury which continued to be experienced in the present and the anterior or posterior Reference times) which would be expected to encode PERFECT tense were not used in the siSwati expressions as a simple PRESENT is used in (4.93), the PAST IMPERFECTIVE in (4.94) and FUTURE IMPERFECTIVE in (4.95).

The PERFECTIVE tenses (which were avoided) can be construed as referring back to the painful knee which was incurred at a point in the past but as is typical with PERFECT or ANTERIOR tenses, the event has current relevance. In (4.93) the relevance extends to the current Speech time, in (4.94) the relevance extends to the past Reference time and in (4.95) the relevance extends to the future Reference time. However as can be seen from the examples which follow the PERFECTIVE tenses do not easily co-occur with Persistivity and the PERSISTIVE aspect marker is inappropriate as these three further examples indicate ‘strong’ Persistivity.

- (4.93) *Solo* *ngi-ya-gijim-a* *onkhe ema-langa*
 CONJ.still SC1sg-DIS.PRES-run-FV QP.all 6-day
- noma* *li-dvolo* *l-ami* *li-buhlungu*
 CONJ.even 5-knee PC5-PS1sg SC5-RS.painful

‘I still run every day but my knee is painful’

Target: ‘I have still run every day despite my painful knee’

- (4.94) *Be-ngi-solo* *ngi-gijim-a* *onkhe ema-langa*
 PAST-SC1sg-AUX.still SC1sg-run-FV QP.all 6-day
- noma* *li-dvolo* *l-ami* *li-buhlungu*
 CONJ.even 5-knee PC5-PS1sg SC5-RS.painful

‘I was still running every day but my knee is painful’

Target: ‘I had still run every day despite my painful knee’

(4.95)	<i>Ngi-tawu-b-e</i> SC1sg-IMM.FUT- <i>be</i> -FV	<i>solo</i> CONJ. <i>still</i>	<i>ngi-gijim-a</i> SC1sg-DIS.PRES- <i>run</i> -FV		
	<i>onkhe ema-langa</i> QP.all 6-day	<i>noma</i> CONJ.even	<i>li-dvolo</i> 5-knee	<i>l-ami</i> PC5-PS1sg	<i>li-buhlungu</i> SC5-RS.painful

‘I am still about to be running every day but my knee is painful’

Target: ‘I will have still run every day despite my painful knee’

The PERFECTIVE absolute and relative tenses describe completed actions or events which have relevance for present Speech time or an anterior or posterior Reference time. Like the ALTERATIVE and PERSISTIVE aspects they can be said to be a dual-time period aspects. This issue is further explored in section 7.4 as one explanation for the avoidance of the PERFECTIVE compound tenses is the greater salience of change over continuity.

Another explanation is that the tense which is described in this analysis as the ANTERIOR or PERFECT tense/aspect hybrid does not describe a past event with current relevance and is simply a PERFECTIVE PAST tense and consequently is not a dual-time period aspect. Rycroft describes this tense as IMMEDIATE PAST (Rycroft, 1981: xxvi) and it is possible that in siSwati there is a dual division between PERFECTIVE and IMPERFECTIVE tenses and not a tertiary split between PERFECT, PERFECTIVE and IMPERFECTIVE. Such an arrangement would be in keeping with the assertion that change is afforded greater salience than continuity in siSwati temporal cognition. Rather than PERFECT tenses being avoided, they are not used because they are not part of the siSwati TAM system. Although this is not a position which has been a specific research subject of this study, the data gathered tends to suggest that it may indeed be an alternative (but valid) explanation for the above responses and others detailed in this analysis, particularly in section 7.4.

Bybee and Dahl observe that PERFECT tenses are used both in RESULTATIVE or stative cases and while they can be formed from any verb in Germanic languages they are often formed from two historical sources; (1) the construction copula + Past Participle and (2) transitive ‘possessive’ constructions with RESULTATIVE meaning (Bybee and Dahl, 1989: 68/9). The development of the PERFECT can proceed further from this stage and there are three directions which are attested; (1) development of an evidential function, (2) development into a PAST or PERFECTIVE marker and (3) the use of PERFECT categories to

express remoteness distinctions (Bybee and Dahl, 1989: 73). It is (2) which may be happening in siSwati and there is evidence of the PERFECT developing into a PAST or PERFECTIVE category in the southern German dialects and spoken French respectively.

Bybee and Dahl also describe the case of Swahili where the end result of the process is that the copula *li* has become a PAST tense marker. The continued grammaticalization of meaning is accompanied by grammaticalization of form where the periphrastic marker of PERFECT becomes affixed to the main verb stem as the meaning changes from PERFECT to PAST or PERFECTIVE (Bybee and Dahl, 1989: 74/5):

(4.96) *a-li-kwend-a*
 SC1-PAST-go-FV
 'He went'

So it is not unprecedented for the PERFECT to continue the grammaticalization process and become a PAST or PERFECTIVE tense and this may be what is happening in siSwati, but this process was not a major research topic in my analysis and further specific empirical research needs to be undertaken in this specific area in order to establish the actual position.

The PERSISTIVE aspect with *-sa-* describes a continuing event which persists in two linked but separate time periods while *solo* indicates Persistivity and was preferred in the above examples (4.91) to (4.95). I would suggest that the PERFECT/PERFECTIVE tenses are incompatible with the Persistivity indicated by *solo* as the tenses encode a completed event whereas *solo* indicates continuity which would also explain the choice of the PRESENT, PAST and FUTURE IMPERFECTIVE tenses.

4.10 The semantic duality of conjunction and auxiliary *solo*

In this section I analyse the semantic duality of *solo* which Rycroft defines as 'since, meanwhile, all the time that, still' (Rycroft, 1981: 93). *Solo* indicates Persistivity ('still') but also Alterativity ('since') so its semanticity is not straightforward and it also performs the dual roles of conjunction or auxiliary. This analysis aims to establish whether or not the dual roles are related in a systematic way to the two senses. The section looks at the role of *solo* in allowing the co-occurrence of Alterativity and Persistivity, considers whether *solo*

indicates ‘strong’ or ‘weak’ Persistivity and includes examples that confirm that *solo* is often preferred to the PERSISTIVE aspect marker *-sa-* suggesting that it may be taking over the functions of that morpheme as the PERSISTIVE marker of choice.

It appears that it is semantic, syntactic and phonological simplicity which is driving the more extensive use and eventual grammaticalization of *solo*. The aspect marker *-sa-* is constrained in its deployment being in complementary distribution with *-se-* the ALTERATIVE marker, subject to phonological change and prone to ambiguity in several environments. *Solo* also enjoys the versatility of being either a conjunction or auxiliary whereas *-sa-* is restricted to the sole function of aspect marker. Finally, from a semantic view, the path to full grammaticalization for *solo* is made easier as it already displays the meaning of the gram (the term used to describe a morpheme undergoing grammaticalization) it is destined to become (Bybee et al., 1991). When *-ta* (‘come’) and *-ya* (‘go’) grammaticalized to FUTURE markers their spatial/motion senses were bleached over time and replaced with a purely temporal sense, which is a process that will be less onerous for *solo*.

The PERSISTIVE is a dual-time period aspect, and the following dialogue demonstrates this feature and introduces *solo* as a conjunction:

- (4.97) *W-ent-a-ni?*
 SC2sg-do-FV-ENCL.what?
 ‘What are you doing?’ (First question)
- (4.98) *Ngì-ya-phek-a*
 SC1sg-DIS.PRES-cook-FV
 ‘I am cooking’ (Respondent describes current activity)
- (4.99) *W-ent-a-ni* *nyalo?*
 SC2sg-do-FV-ENCL.what? ADV.now
 ‘What are you doing now?’ (Second question)

This preliminary exchange establishes the two separate time periods required to encode the PERSISTIVE and the following responses are all acceptable. Example (4.100), which was offered first, indicates Persistivity and (4.101) and (4.102) encode PERSISTIVE aspect with the aspect marker *-sa-*:

(4.100) *Solo* *ngi-ya-phek-a*
 CONJ.*still* SC1sg-DIS.PRES-cook-FV
 ‘I am still cooking’

(4.101) *Solo* *ngi-sa-phek-a*
 CONJ.*still* SC1sg-PERS-cook-FV
 ‘I am **still** cooking’

(4.102) *Ngi-sa-phek-a*
 SC1sg-PERS-cook-FV
 ‘I am still cooking’

Example (4.100) is the favoured response and has the sense of currently being involved in the activity. The activity is continuous (Progressive) and continuing (Persistent) whereas the second response (4.101) encodes PERSISTIVE and the presence of the conjunction *solo* and the aspect marker *-sa-* emphasizes that the activity persists. The final, least favoured, response (4.102) encodes only the PERSISTIVE aspect and is used to refer to an activity that was started some time ago and is still occurring without interruption as described in section 4.3.

Rycroft describes *solo* as a conjunction (Rycroft, 1981: 93) but it can also act as an auxiliary (Ziervogel and Mabuza, 1976: 123) and in this section I explore the semantic implications of these two roles. *Solo* cannot be classified as a temporal adverb like *nyalo* or *manje* as it can act as an auxiliary which neither adverb can, it is followed by the PARTICIPIAL mood and can connect a series of contemporaneous events. As an auxiliary (4.103) it can indicate Persistivity, appear in PARTICIPIAL mood and be followed by that mood:

(4.103) *A-solo* *a-gul-a*
 SC1-AUX.*still* SC1-ill-FV
 ‘He continues to be ill’ (Ziervogel and Mabuza, 1976: 123)

As a conjunction (4.104) it can express the sense of ‘since’ which indicates Alterativity i.e. a change of state (he was in Johannesburg but now he is not):

(4.104) *A-ka-sa-su-ye* *solo*
 NEG-SC1-ALT-NEG.COP-DEF.VB.usually³⁶ CONJ.since

wa-buy-a *e-Jozi*
 REM.PAST.SC1-return-FV LOC-Johannesburg

‘He has not been himself since returning from Johannesburg’
 (Ziervogel and Mabuza, 1976: 150)

The linguistic versatility of *solo* and the limited semantic functionality of *-sa-* are illustrated in the following examples.

(4.105) *Sólo* *bé-ngi-ngá-ka-náts-i*
 CONJ.since REM.PAST-SC1sg-NEG-NEG.PERF-drink-NEG.FV
 ‘I have not been drinking since’

In (4.105) the targeted sense was a discontinuation (ALTERATIVE) of a pre-existing (PERSISTIVE) situation. These two aspects are mutually exclusive (except in sequential situations) and the two aspects cannot relate to a single event (which cannot both continue and change) but they can relate to separate events in the same expression which is the case here. As *solo* appears alone only one sense is indicated and the Persistivity sense of *solo* is a continuation of a non-drinking (NEGATIVE) situation i.e. the speaker was not drinking and then continued his non-drinking which does not reflect the target situation. The Alterativity sense reflects the target situation as the time period referenced is one of not drinking (NEGATIVE) which implicitly follows a period of drinking i.e. the typical polarity change of the ALTERATIVE.

In (4.106) *solo* again indicates Alterativity and is an auxiliary (a bound morpheme) with the prefix *be-* encoding PAST tense whereas in (4.105) *solo* is a conjunction (a free morpheme).

(4.106) *Be-ngi-sólo* *ngi-ngá-ka-náts-i*
 PAST-SC1sg-AUX.ALT SC1sg-NEG-PERF.NEG-drink-NEG.FV
 ‘Since I have not been drinking’

³⁶ In this construction *-se-* becomes *-sa-* and encodes negative ALTERATIVE, literally ‘he is no longer himself’, (*kakusu-* is described as copulative negative and precedes nouns with *u-* in noun class prefix. So *a-ku-su-ku-dla* is ‘it is not food’ (Ziervogel and Mabuza, 1976: 34).

In (4.107) *solo* is a conjunction but the verb has negative PERFECT tense and there is ambiguity with an alternative stative sense ('since I am not drunk').

(4.107) *Sólo* *a-ngí-ka-náts-i*
 CONJ.*since* NEG-SC1sg-PERF.NEG-*drink*-NEG.FV
 'Since I have not drunk'

Solo rather than the PERSISTIVE aspect marker has been used because of the difficulty of expressing both PERSISTIVE and ALTERATIVE aspect (in the negative ALTERATIVE and other environments there is ambiguity because of the phonological change undergone by -*se*-) and the inherent continuity of the STATIVE PERFECT may have influenced the selection of an Alterativity sense with *solo*.

Table 4.2 analyses the examples from this section in terms of the roles and senses of *solo*:

Conjunction	Persistivity	(4.100) (4.101)
	Alterativity	(4.104) (4.105) (4.107)
Auxiliary	Persistivity	(4.103)
	Alterativity	(4.106)

Table 4.2 Roles and senses of *solo*

The switch from auxiliary to conjunction may have been made because *solo* as an auxiliary or as a conjunction can suggest one or other of its two meanings or it may be a question of focus or emphasis but my data does not suggest conclusively that either category is fixed to either sense so it would seem that Persistivity or Alterativity can be indicated regardless of the role of *solo*.³⁷

It is the PERSISTIVE and ALTERATIVE markers that are in complementary distribution and not the aspectuality encoded by them so they can co-occur in an expression as sequential

³⁷ In English the temporal adverb *since* in both the negative and positive creates no vagueness on the polarity switch. *I was not drinking since....* means drinking was being done before but not after the Reference time. In the positive conjugation there is similarly no vagueness *I was drinking since....* because clearly there is a polarity switch from negative > positive. *Since* in English is discontinuous. *Still* in English is clearly continuous.

activities and lexical strategies can be employed to avoid the constraint including the use of *solo*. Examples (4.108) and (4.110) described scenarios which included both aspects and the responses demonstrate the complexity of *solo* and the variety of strategies available for encoding PERSISTIVE and ALTERATIVE in siSwati.

(4.108) <i>Be-ngi-solo</i>		<i>ngi-lindz-ile</i>	<i>kutsi</i>
PAST-SC1sg-AUX. <i>since</i>		SC1sg-wait-DIS.PERF	CONJ. <i>that</i>
<i>ku-vul-w-e</i>		<i>e-bar-eni</i>	<i>emini</i>
15- <i>open</i> -PASS-PERF.FV		LOC-9. <i>bar</i> -LOC	LOC.ADV. <i>at midday</i>
<i>y-onkhe</i>	<i>manje</i>	<i>se-ngi-ya-nats-a</i>	<i>e-ku-gcin-eni</i>
QC9-QP. <i>all</i>	ADV. <i>now</i>	ALT-SC1sg-DIS.PRES- <i>drink</i> -FV	LOC-15- <i>finish</i> -LOC

‘I waited from midday for the tavern to open and now I am at last (still) drinking’

In (4.108) the sense targeted both ALTERATIVE and PERSISTIVE but the marker *-se-* encodes ALTERATIVE, *manje* (‘now’) with the ALTERATIVE marker connects ‘opening’ with ‘drinking’ and *e-ku-gcin-eni* (‘at last’) indicates Exclusivity. Although *solo* appears as auxiliary with the lexical verb *ku-lindz-a* (‘to wait’) it indicates Alterativity (‘since’) so this expression demonstrates that ALTERATIVE is more salient than PERSISTIVE which is not encoded (see chapter seven). However, the combination of temporal adverb (*manje*), disjoint PRESENT (*ngi-ya-nats-a*) and Exclusivity temporal locative (*e-ku-gcin-eni*) can encode PERSISTIVE, as suggested by example (4.109) repeated from section 2.3.1, where it was observed that the disjoint PRESENT can indicate an activity is continuing in the present (Ziervogel and Mabuza, 1976: 174):

(4.109) <i>In-dvodza</i>	<i>i-ya-hlang-an-a</i>	<i>na-ye</i>
9- <i>husband</i>	SC9-DIS.PRES- <i>sleep</i> -REC-FV	ADV.PFX-API
‘The husband is sleeping with her’ (during the time of the pregnancy)		

In (4.110) the scenario again targeted both ALTERATIVE and PERSISTIVE:

- (4.110) *Be-ngi-s-e-bar-eni* *ku-suk-el-a*
 PAST-SC1sg-PLC-LOC-9.tavern-LOC 15-start from-APP-FV
- ekuseni* *kwa-ze*
 LOC.ADV.in the morning REM.PAST.SC15-DEF.VB.until
- kwa-ba-s-e-mini* *kepha* *solo*
 REM.PAST.SC15-be-PLC-LOC-midday CONJ.but CONJ.still
- ngi-ya-nats-a*
 SC1sg-DIS.PRES-drink-FV

‘I was in the tavern all morning until it closed for lunch but since (then) I am still drinking’

In (4.110) *solo* is shown as indicating Persistivity and the presence of the two temporal locatives (*ekuseni* and *emini*) and the deficient verb *-ze* indicate Alterativity. The sense of an activity occurring ‘since’ or ‘until’ a particular time implicitly indicates that it was not occurring before or after (Alterativity). Exclusivity is no longer indicated as the temporal locative (*ekugcineni*) has been dropped as has *manje* and the ALTERATIVE marker *-se-*. The disjoint PRESENT tense is possibly encoding continuity as in (4.109) but in this example it is sentence final and so the disjoint is syntactically obligatory as described in section 2.3.1.

Examples (4.111) and (4.112) reveal an alternative strategy to indicate Persistivity and cast further light on the PERSISTIVE ‘weak’ and ‘strong’ senses, and the role of *solo* in encoding them.

- (4.111) *Í-nyangá* *le-t-á-ko* *sólo*
 9-month RC9-come-FV-ENC CONJ.still
- ngi-tawu-nats-a* *émâ-nti*
 SC1sg-IMM.FUT-drink-FV 6-water

‘Next month I will still drink water’

- (4.112) *Ngí-tawu-chubek-a* *ngi-náts-e* *émâ-nti*
 SC1sg-IMM.FUT-continue-FV SC1sg-drink-SUBJ.FV 6-water
- ‘I will continue drinking water’

Persistivity was indicated in the first response by *solo* but (4.112) used a SUBJUNCTIVE construction with *ku-chubek-a* (‘to proceed, continue’). The aspect marker *-sa-* encodes the

PERSISTIVE and *solo* whether acting as auxiliary or conjunction can indicate Persistivity. In section 4.4 I discuss ‘strong’ and ‘weak’ PERSISTIVE and describe how the verb *ku-chubek-a* encodes the ‘strong’ sense and the above response switched from *solo* to that verb to encode the PERSISTIVE so it would seem that *solo* may also indicate the ‘strong’ sense. However, these examples are not contextualized and the role of *solo* needs to be analysed in consultant-tested examples.

Reduplication of the PERSISTIVE and ALTERATIVE aspect markers occurs although only one of my informants used the feature frequently. Examples (4.113) and (4.114) show reduplicated *-sa-* which emphasizes PERSISTIVE together with the auxiliary *solo*. My fieldwork data shows that *-se-* was more often reduplicated than *-sa-* which may be because reduplication tends to occur word-medially (*-sa-* often becomes *-se-* when occupying slot four)³⁸ so this was an unusual form, which is why I requested an example in context (4.114). Co-occurrence with *solo* may be significant but for a fuller discussion on reduplication see section 5.7:

- (4.113) *Nga-ngi-solo*³⁹ *ngi-sa-sa-nats-a*
 REM.PAST.SC1sg-SC1.sg-AUX.*since* SC1sg-PERS-PERS-*drink-FV*
 ‘I was **still** drinking’
 ‘Since (then) I was **still** drinking’

³⁸ A semantic factor may be that *um-sasane* (female genitals) is often abbreviated to *um-sasa* in current siSwati and although neither form is offensive they would probably not be used in ‘polite’ conversation. When a couple marry (*ku-tek-a*) the bridegroom’s family send meat to the bride’s parents which is called *um-sasane* so this is a culturally acceptable term. Furthermore, *ku-sasa* (‘tomorrow’) is in common use and would also counter the argument. Finally it may be that tone is a factor as the first *a* in both *um-sasane* and *ku-sasa* is H tone and in the reduplicated construction the first *a* has L tone which would also suggest there is no need for avoidance.

³⁹ I have glossed *nga-* as past tense concord, but this duplicates subject concords so it could be that this is a contracted form, reduced from *nga-be ngi-solo* (for a discussion on *ngabe* see section 6.6 and on contracted and analytic forms see section 6.5).

(4.114)	<i>Itolo</i> ADV.yesterday	<i>uma</i> CONJ.when	<i>ba-ngani</i> 2-friends	<i>b-ami</i> PC2-PS1sg
	<i>ba-fik-a</i> REM.PAST.SC2-arrive-FV	<i>be-ngi-nats-a</i> PAST-SC1sg-drink-FV	<i>e-khaya</i> LOC-5.home	
	<i>sa-se</i> ⁴⁰ REM.PAST.SC1pl-ALT.AUX	<i>si-y-a</i> SC1pl-go-FV	<i>e-tavern</i> LOC-7.tavern	<i>ngako</i> ADV.therefore
	<i>nga-ngi-solo</i> REM.PAST.SC1sg-SC1.sg-AUX.since	<i>ngi-sa-sa-nats-a</i> SC1sg-PERS-PERS-drink-FV		

‘Yesterday when my friends arrived I was drinking at home so we went back to the pub and (since then) I was **still** drinking’

As observed above (4.114) has two PERSISTIVE markers (re-duplicated *-sa-*) and auxiliary *solo* indicating either Alterativity or Persistivity which would be disambiguated in context.

The examples (4.115) to (4.118) illustrate the nature of Persistivity and PERSISTIVE aspect and the preference for the conjunction *solo* rather than the aspectual marker *-sa-*. The presence of an object concord or a possessive construction seemed to have no affect although my consultant advised that the selection of *solo* rather than *-sa-* suggests a sense that there may be some impatience or surprise implied. As described in section 4.3 the sense is that the inactivity (‘not cooking’) has continued uninterrupted between the two time periods and whilst a preference for *solo* over the aspectual marker *-sa-* was displayed my consultant did not rule out its use and did not distinguish semantically between them.

(4.115)	<i>Solo</i> CONJ.still	<i>a-ngi-ku-phek-i</i> NEG-SC1sg-OC15-cook-NEG.FV	<i>loku-dla</i> DP15-food
	‘I am still not cooking (the) food (yet)’		
(4.116)	<i>Solo</i> CONJ.still	<i>a-ngeke</i> NEG-DEF.VB.never	<i>ngi-ku-phek-a</i> SC1sg-OC15-cook-FV
	‘I am still not cooking (the) food’		

⁴⁰ The construction *sa-se* encodes ALTERATIVE and indicates the consequential and not consecutive sense (i.e. ‘my friends arrived so we went to the pub’) as described in section 5.6.

(4.117) *Solo* *a-ngeke* *ngi-ku-phek-a*
 CONJ.*still* NEG-DEF.VB.*never* SC1sg-OC15-cook-FV

loku-dla *kw-akhe*
 DP15-*food* PC15-PS1

‘I am still not cooking his food’

(4.118) *Solo* *a-ngi-ka-phek-i* *loku-dla* *kw-akhe*
 CONJ.*still* NEG-SC1sg-NEG.PERF-cook-NEG.FV DP15-*food* PC15-PS1
 ‘I am still not cooking his food (yet)’

Examples (4.116) and (4.117) both have the sense of a refusal to cook and my consultant considered *ngeke* does mean ‘never’ (and not ‘not now’ as observed in section 5.9.1) as they have the sense of an absolute refusal. Examples (4.115) and (4.118) mean that the cooking has not been started yet but will be eventually (the sentences have an Exclusivity sense so I have added (‘yet’) in parentheses), which is the important point for this section as *solo* in this negative expression indicates a counter-expectational sense as described in section 4.7 and so *solo* is functioning as *-sa-* in the negative PERSISTIVE and the translations could equally be ‘I am still to be cooking (his/the) food’.

The following two examples support the view that *solo* is the strategy of choice for encoding Persistivity even with ‘weak’ senses that *-sa-* could express:

(4.119) *A-ngi-ka-se* *nga-phumul-a*
 NEG-SC1sg-NEG.PERF-DEF.VB.*never* REM.PAST.SC1sg-*rest*-FV

ngoba *solo* *ngi-ya-gijim-a*
 CONJ.*because* CONJ.*still* SC1sg-DIS.PRES-*run*-FV

onkhe *ema-langa* *ngoba* *li-bal-ele*
 QP.*all* 6-*day* CONJ.*because* SC5-*fine*-STAT.PERF.FV

‘I’ve never rested because I still run every day as the weather is fine’

(4.120) *Be-ngi-nga-dl-i* *ekuseni* *ku-lama-langa*
 PAST-SC1sg-NEG-eat-NEG.FV ADV-in the morning LOC-DP6-day

ngoba *be-ngi-solo* *ngi-gijim-a*
 CONJ.because PAST-SC1sg-AUX.still SC1sg-run-FV

onkhe *ema-langa* *ngoba* *li-bal-ele*
 QP.all 6-day CONJ.because SC5-fine-STAT.PERF.FV

‘I was not eating in the morning these days because I have still run every day
 as the weather is fine’

Two general conclusions can be drawn from this section, that *solo* can appear as either a conjunction or an auxiliary and it can indicate Persistivity or Alterativity but it has not been possible to firmly link roles and senses. With regard to the indication of ‘strong’ or ‘weak’ PERSISTIVE *solo* can encode either so its versatility is extensive.

However, what is also evident is that Persistivity indicated by *solo* is preferred to PERSISTIVE encoded by *-sa-* and it has been difficult to identify precisely any semantic distinction between *solo* and *-sa-*. A possible explanation is avoidance of the confusion with the negative ALTERNATIVE and whilst there is less ambiguity in the positive I would suggest that in order to be consistent regardless of polarity, *solo* is becoming the lexical strategy of choice even though a morphological option is available.

If that is indeed the case, what is strange is that the ambiguity between negative PERSISTIVE and ALTERNATIVE encoded by *-sa-* is being replaced by a new marker *solo* which itself indicates both Persistivity and Alterativity and is therefore ambiguous which highlights the inconclusive result described above and suggests that further more detailed research may successfully establish a link between the dual roles and senses encoded by *solo*.

4.11 Situational Analysis of PERSISTIVE and ALTERNATIVE aspectuality

There are two sets of situations that the PERSISTIVE in siSwati encodes: ‘weak’ and ‘strong’ situations and ‘interrupted’ and ‘uninterrupted’ intervening periods and these situations have been described and analysed in sections 4.3 and 4.4 and throughout this chapter. A speaker when selecting a morphological or lexical strategy to encode PERSISTIVE aspect or

indicate Persistivity has to make a judgment taking into account the variables represented in the grid shown as Table 4.3.

I have placed entries in the grid but for a comprehensive and definitive analysis further research is essential. I have included *-se-* in the grid as encoding ‘weak’ PERSISTIVE and ‘strong’ positive Persistivity as well as ‘strong’ negative ALTERATIVE. My fieldwork data and discussions supporting the allocations appear in sections 4.5, 4.6 and throughout this chapter. I show *solo* in parentheses as it can appear together with *-sa-* and *-se-* when it indicates focus and emphasis. Section 4.10 has reviewed the role of *solo* in indicating Persistivity and Alterativity.

	PERSISTIVE	Persistivity	ALTERATIVE
	‘weak’	‘strong’ positive	‘strong’ negative
Interrupted	<i>-sa-</i> (4.11) (4.12) <i>solo</i> (4.100) (4.115) (4.116) (4.117) (4.118) (4.119) (4.120)	<i>solo</i> (4.91) (4.92) (4.93) (4.94) (4.95)	
Uninterrupted	<i>-sa-</i> (4.8) (4.9) (4.10) (4.14) (4.16) (4.19) (4.102) <i>solo</i> (4.103) <i>-sa- (solo)</i> (4.6) (4.7) (4.101) <i>-se-</i> (4.58) <i>ku-nga-ko</i> (4.20)	<i>ku-chubek-a</i> (4.17) (4.18) (4.48) <i>-sa-</i> (4.30) (4.31) (4.49) <i>-se-</i> (4.45) (4.46) (4.50)	<i>-se-</i> (4.52) (4.54) (4.55) (4.56) <i>-se- (solo)</i> (4.53)

Table 4.3 PERSISTIVE situational grid

The empty box for interrupted ‘strong’ negative ALTERATIVE is not considered to be significant as all five examples with *-se-* which encoded counter-expectational ‘strong’ ALTERATIVE were IMMEDIATE FUTURE tense and so it is uncertain whether or not the intervening period is interrupted. I have classified (4.6) (‘Are you still studying siSwati?’) as

uninterrupted but such examples will be a matter for individual speaker judgment as observed in section 4.3 and although I have allocated examples (4.91) to (4.95) (about running) to the interrupted box they are not semantically dissimilar from (4.6) and so the assessment of their intervening period is also subjective. The most significant feature displayed by table 4.3 is the representation overall of *-sa-* which is equalled by other markers both lexical and morphological which supports the assertion of this analysis that its functions are being taken over by other aspectual markers.

The strategies which have been identified are *-sa-*, *solo* and *ku-nga-ko* which encode ‘weak’ PERSISTIVE/Persistivity and *ku-chubeka*, *-se-* and *solo* which encode ‘strong’ Persistivity although both *-sa-* and *-se-* because they undergo phonological change in certain environments switch between the ‘strong’ and ‘weak’ columns. Further research is needed in order to fully understand this process and to add to the complexity it is likely that the ‘weak/strong’ variables are not a simple dichotomy but a graded cline dependent on speaker perception as described above. The intervening period is not unproblematic either, as an extended period of intermittent activity can be cognitively perceived as uninterrupted if the activity is continuing between the separate time periods (i.e. studying). Finally there is the issue of the counter-expectational ‘strong’ negative ALTERATIVE which adds a further level of morpho-semantic complexity.

4.12 Summary

In this chapter I have investigated the morpheme *-sa-* and how it encodes PERSISTIVE aspect in siSwati and I have described its morpho-semantic, phonological and syntactic behaviour. The PERSISTIVE and ALTERATIVE morphemes *-sa-* and *-se-* are in complementary distribution and the morpho-syntactic constraints this imposes on the encoding of aspectuality have been reviewed. The different situations that can be described in the PERSISTIVE, namely the ‘weak’ and ‘strong’ situations as well as the interrupted and uninterrupted intervening periods were investigated. A section on negation, aspectuality and the counter-expectational in siSwati was followed by three sections on the complex relationship with stative verbs, PERFECTIVE compound tenses and the conjunction/auxiliary *solo*. Section 4.11 collates the data analysed throughout the chapter in a grid which

summarizes PERSISTIVE and ALTERATIVE aspectuality in terms of the three senses and the intervening period.

In this chapter and chapter five my analysis demonstrates that to regard the aspectual marker *-sa-* and the conjunction/auxiliary *solo* as simply the siSwati equivalent of ‘still’ (PERSISTIVE) and the aspectual marker/auxiliary *-se-* and temporal adverb *nyalo* as simply the siSwati equivalent of ‘now’ (ALTERATIVE) is to underestimate their complexity.

In the next chapter I continue my review of the three aspects with an analysis of the ALTERATIVE which is morphologically encoded by *-se-*.

5. The encoding of ALTERATIVE aspect in siSwati

5.1 Introduction

In this chapter I look at the second of the three aspects with which this thesis is concerned, the ALTERATIVE and its marker *-se-*. I describe its morpho-semantic and phonological behaviour, analyse the complementary distribution of *-se-* when functioning as an aspect marker and the PERSISTIVE aspect marker *-sa-* and the semantic and syntactic constraints affecting them. The ALTERATIVE morpheme *-se-* can function either as a bound aspect marker or as an auxiliary and as an auxiliary it can co-occur with the PERSISTIVE aspect marker *-sa-*. The ALTERATIVE aspect marker *-se-* reduces as in (5.1) when the lexical verb is in the PARTICIPIAL mood for noun class 1:

- (5.1) *A-sa-nats-a* (*A-se a-nats-a > a-sa-nats-a*)
 SC1-ALT-*drink*-FV
 ‘(while) he now drinks’

Example (5.2) is in INDICATIVE mood and there is no reduction, */e/* surfaces and there is insertion of homorganic */w/* glide:

- (5.2) *Se-wu-ya-nats-a* (*U-se u-ya-nats-a > se-wu-ya-nats-a*)
 ALT-SC1-DIS.PRES-*drink*-FV
 ‘He now drinks’

The ALTERATIVE aspect marker *-se-* appears as *-sa-* in order to occupy slot four of the verbal template in the negative ALTERATIVE and the change is analogical (see section 2.2.3.2 and 5.4 for morphophonology of *-se-*).

There is a sub-sense of the ALTERATIVE which I analyse as Exclusivity and appears with positive (*-se-*) and negative (*se-nga-ka*) polarity and as they are new analyses developed in this thesis I compare them with the EXCLUSIVE implication as proposed in the standard grammars (Ziervogel and Mabuza, 1976, Doke, 1947). The ALTERATIVE aspect marker undergoes phonological change in certain environments including non-verbal constructions and this behaviour is investigated.

Be-se is a construction formed with the PAST tense marker *be-* and this and other compound forms with the ALTERATIVE morpheme are analysed followed by sections reviewing reduplication and semantic complexity which provide additional material in the analysis of this aspectual marker and auxiliary. A final section looks at the REMOTE FUTURE and the ALTERATIVE including a review of *ngeke* as a negative FUTURE marker.

The chapter is organised as follows: section 5.2 describes how the ALTERATIVE aspect is encoded in siSwati with a sub-section which reviews its semantics and 5.3 profiles the role of *-se-* with the temporal adverbs *nyalo* and *manje*. Section 5.4 reviews phonological change followed by 5.5 which is divided into five sub-sections and looks at various features of the ALTERATIVE Exclusivity sub-sense with a re-analysis of the siSwati aspectual taxonomy. Section 5.6 profiles lexical constructions with *-se-*, 5.7 analyses reduplication in forms with *se-nga-ka* and in statives and 5.8 looks at the semantic complexity of the dual-time period aspects. Section 5.9 looks at the connection of REMOTE FUTURE markers with ALTERATIVE aspect including a sub-section describing *ngeke* and its role as a negative FUTURE marker.

5.2 The ALTERATIVE aspect in siSwati

In this section I describe the morphological, semantic and syntactic nature of the ALTERATIVE aspect marker and auxiliary *-se-* followed by an analysis of the tenses in which it occurs. The temporal adverb *nyalo* ('now') and *-se-* jointly perform a conjunctive role to semantically connect situations in bi-clausal sentences and this function is analysed in this section and 5.3.

The ALTERATIVE encodes situational changes which can be a switch from negative to positive or vice versa or a switch from one activity to another. These changes link two separate time periods and so, like the PERSISTIVE, the ALTERATIVE is classified as a dual-time period aspect.

In (5.3) temporality and ALTERATIVE aspect or Exclusivity sub-sense are encoded by *-se-* and the disjoint PRESENT. The temporality sense locates the activity in the present in conjunction with the PRESENT tense of the verb but does not emphasize temporality. To

encode an ‘at this moment’ sense of temporality the adverb *nyalo* is required or the more emphatic *khona nyalo* (‘right now’).

- (5.3) *Se-ngi-ya-phek-a*
 ALT-SC1sg-DIS.PRES-cook-FV
 (a) ‘Now I am cooking’
 (b) ‘I am already cooking’

Both senses are dual-time period aspects which link an anterior time point with the present and are interpreted contextually. The ALTERNATIVE meaning (a) is that at an anterior time the speaker was not cooking but now she is (a polarity switch) and the speaker is looking at the event from a current perspective. The Exclusivity sense (b) is that the speaker started cooking at an anterior time point and the activity is viewed from the perspective of the past time when the activity started with the implication that the activity does not need to start again (i.e. it is excluded from starting again). In the positive PRESENT *-se-* appears in TAM slot one and not four as it does in the negative PRESENT when it appears as *-sa-*. In the negative it has the sense of ‘no longer’ (5.4) and the counter-expectational ‘not yet’ (5.5) (see section 4.7):

- (5.4) *A-ngi-sa-phek-i*
 NEG-SC1sg-ALT-cook-NEG.FV
 ‘I no longer cook’
- (5.5) *Ngi-se-nga-ka-phek-i*
 SC1sg-ALT-NEG-PERF-cook-NEG.FV
 ‘I do not yet cook’

The ALTERNATIVE involves a polarity or activity change and occurs over a range of tenses although certain combinations are incompatible:

- | | | | |
|-------|-------------------------------|---------------|----------------------------|
| (5.6) | ? <i>Nga-bhal-a</i> | <i>kodywa</i> | <i>se-ngi-ya-phek-a</i> |
| | REM.PAST.SC1sg-write-FV | CONJ.but | ALT-SC1sg-DIS.PRES-cook-FV |
| | ‘I wrote but just now I cook’ | | |

In (5.6) the use of the PERFECTIVE REMOTE PAST tense encodes a completed event and means that there is no obvious connection between the two time periods which is unacceptable semantically as the temporal remoteness of the activities conflicts with the recent temporal proximity encoded by *-se-* and the disjoint PRESENT. The activity in the

first time period (writing) could have taken place at any time in the past and appearing alone *-se-* has the sense of an activity happening ‘just’ now so the past activity (writing) may have no relevance to the current activity (cooking) and such a connection is required by the ALTERATIVE aspect encoded by *-se-*, the sense of which is an altered state such as in (5.6), from one mode (writing) to another (cooking).

- (5.7) *A-ngi-phek-anga* *kodvwa* *se-ngi-ya-phek-a*
 NEG-SC1sg-cook-REM.PAST.NEG CONJ.but ALT-SC1sg-DIS.PRES-cook-FV
 ‘I did not cook but now I cook’

When there is a polarity switch the REMOTE PAST tense (5.7) is semantically acceptable as the connection is between a time period when the activity did not take place and one when it did so the relative temporal proximity of the two time periods is not crucial as the connection is established by the polarity switch.

Examples (5.8) and (5.9) encode the positive absolute ANTERIOR or PERFECT tense and so there is a semantic relevance which connects with the current activity. They differ only by the presence of the prefix *-se-* of the first verb in (5.9) and the ALTERATIVE aspect marker is encoding the Exclusivity sub-sense (‘already’).

- (5.8) *Ngi-ku-phek-ile* *ku-dla* *nyalo*
 SC1sg-OC15-cook-DIS.PERF 15-food ADV.now

se-ngi-ya-fundz-a
 ALT-SC1sg-DIS.PRES-read-FV

‘I have cooked food and just now I am reading’

- (5.9) *Se-ngi-ku-phek-ile* *ku-dla* *nyalo*
 ALT-SC1sg-OC15-cook-DIS.PERF 15-food ADV.now

se-ngi-ya-fundz-a
 ALT-SC1sg-DIS.PRES-read-FV

‘I have already cooked food and just now I am reading’

Example (5.6) was described as semantically ill-formed because of the PAST tense concord *nga-* and a lack of connectedness but in (5.10) this deficiency has been overcome by the temporal adverb *nyalo* (‘now’) and *-se-* on the second verb. The adverb *nyalo* performs two

functions when appearing with *-se-*; it establishes a connection between two situations in a bi-clausal expression and emphasizes the recent temporal proximity of an activity ‘just’ happening.

- (5.10) *Nga-ku-phek-a* *ku-dla* *nyalo*
 REM.PAST.SC1sg-OC15-cook-FV 15-food ADV.now
- se-ngi-ya-fundz-a*
 ALT-SC1sg-DIS.PRES-read-FV
- ‘I cooked food and just now I am reading’

In (5.11) there is an activity switch (writing > cooking) and it is IMPERFECTIVE and unbounded so the connection between the two activities is not precluded.

- (5.11) *Be-ngi-bhal-a* *kodvwa* *se-ngi-ya-phek-a*
 PAST-SC1sg-write-FV CONJ.but ALT-SC1sg-DIS.PRES-cook-FV
- ‘I was writing but just now I am cooking’

In (5.12) and (5.13) polarity switches are encoded but not an activity switch. The negative PERFECTIVE has the effect of emphasizing the boundedness of the inactivity period and both the negative IMPERFECTIVE (5.12) and the negative PERFECT (5.13) are acceptable:

- (5.12) *Be-ngi-nga-phek-i* *kodvwa* *se-ngi-ya-phek-a*
 PAST-SC1sg-NEG-cook-NEG.FV CONJ.but ALT-SC1sg-DIS.PRES-cook-FV
- ‘I was not cooking but now I am cooking’
- (5.13) *A-ngi-ka-phek-i* *kodvwa* *se-ngi-ya-phek-a*
 NEG-SC1sg-NEG.PERF-cook-NEG.FV CONJ.but ALT-SC1sg-DIS.PRES-cook-FV
- ‘I have not cooked but now I cook’

Connectedness is crucial as the PERFECT is a past event with current relevance so the sense of (5.13) is not only that the anterior activity (cooking) did not happen prior to Speech time but that there is a semantic relevance which connects with the current activity.

In (5.14) the temporal adverb *nyalo* and ALTERATIVE *-se-* achieve connectivity between the two events which *-se-* alone cannot achieve and this was indicated in the comparison of examples (5.6) and (5.10). It is not material whether the past marker is remote or immediate

because this is IMPERFECTIVE aspect (and so unbounded) not PERFECTIVE as with the PAST tense concord *nga-* in (5.6).

- (5.14) *Be-ngi-phek-a* *ku-dla* *nyalo* *se-ngi-ya-fundz-a*
 PAST-SC1sg-cook-FV 15-food ADV.now ALT-SC1sg-DIS.PRES-read-FV
 ‘I was cooking food and just now I am reading’

The ALTERATIVE aspect marker and auxiliary *-se-* and the PERSISTIVE aspect marker *-sa-*, described by Z&M and Rycroft as EXCLUSIVE and PROGRESSIVE respectively (Rycroft, 1981: 85/6, Ziervogel and Mabuza, 1976: 178 & 188), do not co-occur as aspect markers in the same verbal form, but they can appear together in the verbal predicate and this behaviour is a consequence of the ALTERATIVE and PERSISTIVE aspectuality which these morphemes encode.

From an aspectual viewpoint a situation cannot be both continuing and changing, processes that are mutually exclusive, so neither the aspectuality nor the morphemes which represent them should normally co-occur. Semantically this is absolutely the case, but an expression may reference sequential activities and siSwati has strategies to deal with these circumstances including temporal adverbs such as *ekugcineni* (‘at last’) or conjunctions and auxiliaries such as *solo* (‘still’, ‘since’) which was analysed in 4.10 of the previous chapter.

This section has considered the range of tenses in which the ALTERATIVE aspect marker can appear, and how *nyalo* (‘now’) and *-se-* appearing jointly can semantically connect situations in bi-clausal sentences and emphasize recent temporal proximity which are features that are investigated further in 5.3.

5.2.1 A semantic review of the ALTERATIVE aspect

In this section I analyse the distinct sense of change and altered states that the ALTERATIVE aspect *-se-* encodes while connecting separate time periods in the past, present or future. The examples feature *-se-* as both aspect marker and auxiliary with three basic positive meanings; ‘now’ (5.15), ‘already’ (5.16) and ‘then’ (5.17) (Ziervogel and Mabuza, 1976: 158):

- (5.15) *Se-ba-ya-cedz-a* *nge-m-sebenti* *wa-bo*
 ALT-SC2-DIS.PRES-*finish*-FV ADV.PFX-3-*work* PC3-PS2
 ‘They are now finishing their work’
- (5.16) *Se-ba-hamb-ile* *yini* *laba-fati*
 ALT-SC2-go-PERF.FV INTRG.*is it so?* DP2-*women*
 ‘Have the women already left?’
- (5.17) *Wa-ng-etfuk-a* *nga-se*
 REM.PAST.SC1-OC1sg-*swear*-FV REM.PAST.SC1sg-AUX.ALT
- ngi-ya-m-dvumel-a*
 SC1sg-DIS.PRES-OC1-*attack*-FV
- ‘He swore at me then I attacked him’

The following expression was seen on the side of a mini-bus in Mbabane:

- (5.18) *Se-y’-ba-hash-ile*
 ALT-SC9-OC2-*brush against*-DIS.PERF
 ‘It has brushed against them’

This use is typical of the meaning expressed by the ALTERATIVE aspect marker which in (5.18) encodes the sense of an altered state, i.e. before it (a stinging nettle which metaphorically represents misfortune) had not brushed against them (people in general), but now it has brushed against them, so they have gone from not being brushed against to being brushed against. Interestingly it is the object rather than the subject that has experienced the change of state in (5.18). The same altered state sense is present in:

- (5.19) *Se-ngi-suts-i*
 ALT-SC1sg-*replete*-STAT.PERF.FV
 ‘I am full’
- (5.20) *Se-si-fik-ile*
 ALT-SC1pl-*arrive*-DIS.PERF
 ‘We have arrived’

The sense is an altered state, so in (5.19) the speaker has gone from a state where he was not full to one where he is and the speakers in (5.20) have gone from a state of non-arrival to one of arrival.

- (5.21) *So-ne-ba-ntfwana*⁴¹ *lo-m-fana*
 ALT.SC1-ADV.PFX.with-2-children DP1-1-child
 ‘The child is teething’
 Lit: ‘This child is now with children’

This idiomatic expression also captures the essence of the ALTERATIVE aspect in siSwati where the ALTERATIVE focuses on the change of state (from not having teeth to having teeth). The significant feature that (5.18) to (5.21) have in common is that *-se-* the ALTERATIVE aspectual marker is absolutely essential to the meaning being expressed. So (5.19) can be uttered after a meal, but if *-se-* was omitted it would sound strange, as if the speaker was making a statement that had no relevance to the meal he had just eaten and which had caused the change of state. On the other hand, the expression would be appropriate without *-se-* when refusing food because the speaker was already full.

A cognate ALTERATIVE marker *-se-* is found in isiZulu and (5.22) shows that it expresses similar semantics:

- (5.22) *Se-li-bantubahle*
 ALT-5-beautiful people
 ‘dusk’

The literal meaning is ‘now the beautiful people’ (Golightly, 2008: 299) and the sense is that the evening is the best part of the day. The ALTERATIVE aspect marker highlights the temporal transition, encoding a change of state from day to evening that is typical of the ALTERATIVE.

Acting as auxiliary, *-se-* encodes a sequential sense (5.23) or describes an intermittent or occasional action (5.24):

- (5.23) *Wa-se* *u-tsi-ni-ke?*
 REM.PAST.SC1-AUX.ALT SC1-say-INTRG-ENC
 ‘What did he say then?’ (Ziervogel and Mabuza, 1976: 158)
- (5.24) *Ngi-se* *ngi-y-e* *ku-yo-bon-a* *bo-malume*
 SC1sg-AUX.ALT SC1sg-go-FV 15-REM.FUT-see-FV 2a-uncles
 ‘I occasionally go to see my uncles’ (Ziervogel and Mabuza, 1976: 156)

⁴¹ The ALTERATIVE aspectual marker *-se-* before the third person subject concord (*w*)*u-* becomes *so-*.

The aspect marker *-se-* can mean ‘then’ in a sequence of clauses (Ziervogel and Mabuza, 1976: 159) and the sense of (5.25) is ‘consecutive’ as the sentence is describing a series of events which happen one after another so the interpretation is essentially pragmatic, but compare (5.25) with (5.26) where *-se-* is an auxiliary and the construction with the PAST tense concord encodes a ‘consequential’ sense:

(5.25) *Se-si-ya-balek-a-ke*⁴²

ALT-SC1pl-DIS.PRES-*run*-FV-ENCL

se-yi-ya-si-landz-el-a

ALT-SC9-DIS.PRES-OC1pl-*follow*-APP-FV

i-nyatsi.....

9-*buffalo*

‘Then we run away; then the buffalo follows us’

When bound to a PAST tense concord such as *nga-* in (5.26) *-se-* can encode a ‘consequential’ sense rather than ‘consecutive’:

(5.26) *Nga-balek-el-a*

REM.PAST.SC1sg-*run away*-APP-FV

i-nyoka

9-*snake*

nga-se

REM.PAST.SC1sg-AUX.ALT

ngi-nga-val-i

SC1sg-NEG-*close*-NEG.FV

e-si-bay-eni

LOC-7-*kraal*-LOC

‘I ran away from a snake and then didn’t close the kraal’

In (5.27) and (5.28) from Z&M, I would posit that when appearing as an auxiliary, the ALTERATIVE marker *-se-* encodes a ‘consecutive’ sense with *be-* and a ‘consequential’ sense with a PAST tense concord. So (5.27) literally has the sense of ‘Then you saw a mamba?’ but because the example is out of context it is not known what the preceding event was, although it may have been; ‘(You lifted the rock) then you saw a mamba’ i.e. as a consequence of lifting the rock the mamba was seen. It is hard to reconcile Z&M’s translation which appears to be an experiential PERFECT and is not supported by the morphology of the example.

(5.27) *Wa-se*

REM.PAST.SC2sg-AUX.ALT

wa-yi-bon-a

REM.PAST.SC2sg-OC9-*see*-FV

i-mamba

9-*mamba*

‘Have you ever seen a mamba?’

⁴² *-ke* here is an enclitic meaning ‘now’, ‘so’ ‘then’ (Rycroft, 1981: 45) and not a deficient verb.

This ‘consequential’ sense in (5.27) contrasts with the ‘consecutive’ sense in (5.28) which is encoded by the auxiliary *-se-* appearing in a construction with the PAST tense marker *be-* (Ziervogel and Mabuza, 1976: 154):

- (5.28) *Ba-condz-a* *le* *ng-e-sang-w-eni*
 SC2-go towards-FV ADV.there ADV.PFX.by-LOC-5.gate-PLC-LOC
- be-se* *ba-ya-w-etful-a* *um-tfwalo* *wa-bo*
 PAST-AUX.ALTSC2-DIS.PRES-OC3-put down-FV 3-luggage PC3-PS2

‘They go towards the gate and then put down their luggage’

Constructions with *-se-* are analysed further in 5.6 but the comparison of *be-se* in (5.28) with *nga-se* and *wa-se* in (5.26) and (5.27) suggests that *be-se* can be analysed either as PAST tense marker *be-* or PAST tense concord of noun class 2 depending on the sense encoded. Such an analysis would display concordial agreement with the subject marker noun class two (*ba-*)⁴³ in the case of a ‘consequential’ sense but the PAST tense marker appears when the meaning is ‘consecutive’. *Be-se* often appears where noun class two agreement is not involved so appears to be the form used in all ‘consecutive’ sentences regardless of the number and person, but in (5.28) the sense is ‘consecutive’ so I analyse *be-* as PAST tense marker although the issue is investigated further in 5.6 with a full analysis of ‘consecutive’ and ‘consequential’ examples.

5.3 The ALTERATIVE aspect marker *-se-* with *nyalo* and *manje*

In this section are examples where the ALTERATIVE aspect marker *-se-* appears with temporal adverbs (*Aktionsart*) and the distinction between ALTERATIVE aspect and Alterativity is discussed so whereas Alterativity is implicit in ALTERATIVE aspect, only *-se-* encodes ALTERATIVE aspect. *Nyalo* or *manje* and temporal adverbs such as *itolo* (‘yesterday’) can express a sense of temporality but they cannot encode tense and the analysis describes the meanings expressed by both *-se-* and *nyalo* in various combinations and asserts that both are necessary to semantically connect the situational elements of a bi-clausal expression.

⁴³ *Be-* is a noun class 2 prefix for a small number of nouns: *be-lumbi* ‘whites’, *be-lungu* ‘whites’ *beTswana* ‘Tswanas’ and *be-Sutfu* ‘Sothos’ (Ziervogel and Mabuza, 1976: 10).

The PRESENT tense in siSwati encodes the ‘vast present’ (Nurse, 2008: 318) which includes past, present and future and can be temporal, Habitual, Generic or Progressive depending on context. In example (5.29) *-se-* encodes ALTERATIVE aspect or the ALTERATIVE Exclusivity sub-sense which will be established within the context of a discourse, and indicates a change of activity or a change in the polarity of the same activity. Appearing alone *-se-* encodes a sense of recent temporal proximity i.e. of something happening ‘just’ now.

- (5.29) *Se-ngi-ya-nats-a*
 ALT-SC1sg-DIS.PRES-*drink*-FV
 ‘I am drinking just now’
 ‘I already drink’

Example (5.30) indicates Alterativity but does not encode ALTERATIVE aspect (the activity switch from drinking tea to drinking beer). Temporality is indicated by *manje*, the contrast with *kadzeni* and context but the absence of the aspect marker *-se-* means that the tea and beer drinking are semantically unconnected.

- (5.30) *Kadzeni* *be-ngi-nats-a* *li-tiya kuphela* *kepha*
 ADV.*before* PAST-SC1sg-*drink*-FV 5-*tea* ADV.*only* CONJ.*but*
- manje* *ngi-nats-a* *tjw-ala*
 ADV.*now* SC1sg-*drink*-FV 14-*beer*

‘Before I was only drinking tea but now I am drinking beer’

In (5.31) ALTERATIVE is encoded, temporality indicated and the context is that the speaker is standing at the bar with a glass of beer. The adverb *manje* appears as does the ALTERATIVE prefix *-se-* in the disjoint PRESENT so ALTERATIVE aspect is encoded with an activity switch (from ‘going to town’ to ‘drinking beer’). The temporal adverb and aspect marker connect the two events and establish a semantic relevance because beer drinking is taking place as a result of the trip to town being postponed. The disjoint PRESENT with a complement encodes emphasis on the predicate (Ziervogel and Mabuza, 1976: 175) which is important as the new activity (‘drinking beer’) is highlighted against the old activity (‘going to town’).⁴⁴

⁴⁴ For an example of *-se-* with the conjoint PRESENT see (5.49) which has a complement (a locative construction) and so requires the conjoint form.

- (5.31) *Be-ngi-y-a* *e-dolobh-eni* *kepha* *manje*
 PAST-SC1sg-go-FV LOC-5.town-LOC CONJ.but ADV.now
- sé-ngí↑-ya-nats-a* ⁴⁵ *tjw-ala*
 ALT-SC1sg-DIS.PRES-drink-FV 14-beer

‘I was going to town but I am **just now drinking beer**’

In (5.32) only Habituality and temporality are indicated and *nyalo* alone (without *-se-*) does not connect the two events (drinking beer and drinking tea are disparate activities) or encode ALTERATIVE.

- (5.32) *Be-ngi-nats-a* *tjw-ala* *kepha* *nyalo*
 PAST-SC1sg-drink-FV 14-beer CONJ.but ADV.now
- ngi-nats-a* *li-tiya kuphela*
 SC1sg-drink-FV 5-tea ADV.only

‘I was drinking beer but now I only drink tea’

The following data concerning this function was obtained by email and the semantic descriptions are quoted almost verbatim.

- (5.33) *Be-ngi-dlal-a* *nyalo* *se-ngi-ya-hluphek-a*
 PAST-SC1sg-play-FV ADV.now ALT-SC1sg-DIS.PRES-suffer-FV
 ‘I was playing now I am suffering’

This expression (5.33) has the meaning: ‘I did not do what was expected of me and now I am suffering in a state of poverty’. The aspect marker *-se-* encodes this change of condition (ALTERATIVE aspect) so the speaker is implying ‘before I played (*be-ngi-dlal-a*) my condition was different.’ The temporal adverb *nyalo* and the ALTERATIVE marker encode recent temporal proximity but *nyalo* also seems to be acting as a conjunction in this sentence because it links the first situation with the second. Without *nyalo* the sentence would be a poor construction and not good siSwati as my consultant advised me that a listener would ask ‘Are you saying you are suffering because you played?’ showing that the causal relation between the two sentences is introduced by *nyalo* and is not clear without it. However (5.34) is grammatical:

⁴⁵ The presence of the arrow indicates a rising tone.

- (5.34) *Be-ngi-dlal-a* *nyalo* *ngi-ya-hluphek-a*
 PAST-SC1sg-play-FV ADV.now SC1sg-DIS.PRES-suffer-FV
 ‘I was playing now I am suffering’

This time the sentence is without *-se-* but it lacks a change of condition i.e. because I played I am poor. This second sentence does not describe a previous condition, there could be a connection or not, it is not known. It is the aspect marker *-se-* which indicates the change of condition so in order to encode both the change of condition and the connection between the two activities both *nyalo* and *-se-* are indispensable. The above analysis of this sentence exemplifies the role of the ALTERATIVE morpheme *-se-* in the siSwati TAM system and the importance of sentence level semantics in expressions involving temporal adverbs such as *nyalo* and *manje*.

In (5.35) the sense is that the speaker used to read books but now watches television. The marker *-se-* appears in TAM slot four in the first verb and word-initially in the second encoding both negative and positive ALTERATIVE aspect so there is a polarity switch from reading to not reading and an activity switch from reading to viewing. Because *manje* and *-se-* both appear there is a connection between reading and viewing and as this expression contains two instances of ALTERATIVE aspect a connection is established between both stages.

- (5.35) *Manje* *a-ngi-sa-fundz-i* ⁴⁶ *tin-cwadzi*
 ADV.now NEG-SC1sg-ALT-learn-NEG.FV 10-books

 se-ngi-buk-el-a *i-TV*
 ALT-SC1sg-look-APP-FV 9-television

‘Now I am no longer reading books I am just watching TV’

In (5.36) *nyalo* and *-se-* both appear denoting a change of state, from not having a television to having one so together they make the connection between these two states.

⁴⁶ In the first verb *-se-* appears as *-sa-* in TAM slot four to encode NEGATIVE ALTERATIVE.

(5.36) *Nyalo* *se-ngi-na-ma-bonakudze*
 ADV.now ALT-SC1sg-ADV.PFX.with-6-television

a-ngi-fundz-i *tin-cwadzi*
 NEG-SC1sg-read-NEG.FV 10-books

‘Now I have a television I do not read books’

These last two examples illustrate the connectivity role of *nyalo* and *-se-* appearing together but also raise an ancillary issue. In (5.35) as the ALTERATIVE marker appears twice both stages are semantically connected but in (5.36) it could be argued that the single appearance of the ALTERATIVE marker encodes only one polarity switch (‘not having and having a television’) but not the other (‘from reading to not reading books’). Unfortunately I did not explore this possibility with my consultant and so further discussions could establish the exact difference between (5.35) and (5.36).

The two adverbs *nyalo* and *manje* (‘now’) are only appropriate in the present so they cannot appear in past expressions but the ALTERATIVE aspect marker *-se-* can morphologically encode ALTERATIVE aspect in PAST, PRESENT or FUTURE tenses. If *-se-* is used alone temporality can be indicated with the tense of the verb and ALTERATIVE aspect can be encoded but without *nyalo* the essential semantic connection cannot be made. The key point in the above analysis is that *nyalo* which is a temporal adverb is also acting as a conjunction and establishing a connection between situations in present bi-clausal sentences together with the ALTERATIVE aspect marker *-se-*. In non-present expressions, in which *nyalo* (or *manje*) cannot be used, connections can still be made with conjunctions such as *ngoba* (‘because’), *ngako* (‘so’) or *ngako-ke* (‘so’).

The following examples feature various combinations of *-se-*, *nyalo* and *manje*, display an array of meanings from several consultants and demonstrate how these three morphemes combine to establish connections, indicate Alterativity, Habituality and temporality and encode ALTERATIVE aspect. The aspect marker *-se-* can encode the ALTERATIVE Exclusivity sense (‘already’) so this sense and the Progressive could be indicated depending on context but I have restricted my analysis to one or more of Habituality, Alterativity and temporality. The senses indicated and the aspects encoded are recorded in Table 5.1 below.

Example (5.37) is uttered in the context of ‘now at this moment I am (in the process of) drinking’. The ALTERATIVE aspect is absent but temporality and Alterativity are indicated by *nyalo* and the disjoint PRESENT which has the sense that drinking is taking place ‘at this time’ but not before.

- (5.37) *Nyalo* *ngi-ya-nats-a*
 ADV.now SC1sg-DIS.PRES-*drink*-FV
 ‘Now I drink’ (Habituality, Alterativity, temporality)

Example (5.38) has the sense of stressing recent temporal proximity and Habituality within a context of ‘before I was not drinking but now I am in the habit of drinking’ so with *-se-* it encodes ALTERATIVE aspect and together with *nyalo* could connect the elements of an activity or polarity switch in context.

- (5.38) *Nyalo* *se-ngi-ya-nats-a*
 ADV.now ALT-SC1sg-DIS.PRES-*drink*-FV
 ‘I drink just now’ (ALTERATIVE, Habituality, temporality)

Expression (5.39) could be used where the speaker is being called and his reply implies ‘please wait until I have finished what I am doing.’ *Nyalo* indicates temporality in that the activity is currently taking place although Habituality is not indicated and *-sa-* encodes PERSISTIVE aspect. This example featuring PERSISTIVE *-sa-* with *nyalo* confirms that *nyalo* only indicates temporality and cannot encode ALTERATIVE aspect which can only be done by the aspect marker *-se-*.

- (5.39) *Nyalo* *ngi-sá-nats-a*
 ADV.now SC1sg-PERS-*drink*-FV
 ‘I still drink’
 ‘Now I still drink’ (PERSISTIVE, temporality)

Example (5.40) means that the speaker is continuing to drink. The adverbial prefix *na-* puts temporality in focus and Persistivity is indicated by the conjunction *solo* so there is reference back to an anterior time in which drinking was taking place. The conjunction *solo* expresses Persistivity, see chapter four (sections 4.4, 4.10 and 4.11) and when used with the PERSISTIVE marker *-sa-*, *solo* indicates surprise that an activity persists, so the sense of

(5.40) is that drinking is persisting but it does not indicate any unusual implicit factor which is responsible.

- (5.40) *Na-nyalo* *solo* *ngi-ya-nats-a*
 ADV.PFX.*even*-ADV.*now* CONJ.*still* SC1sg-DIS.PRES-*drink*-FV
 ‘(Even) now I still drink’ (Persistivity, temporality)

Example (5.41) is said in the context of ‘I was not drinking before but now I am’ so it is a current event in which temporality is indicated but ALTERATIVE aspect is not encoded. The speaker has acquired the habit of drinking and there is Alterativity in the sense that it is a newly acquired habit, but it is Alterativity (and not ALTERATIVE) because the activity is stressing a current event ‘where the drink is in front of the speaker’. ⁴⁷

- (5.41) *Manje* *ngi-ya-nats-a*
 ADV.*now* SC1sg-DIS.PRES-*drink*-FV
 ‘Now I drink’ (Habituality, Alterativity, temporality)

Example (5.42) has the same sense as (5.38) with *nyalo*. ⁴⁸

- (5.42) *Manje* *se-ngi-ya-nats-a*
 ADV.*now* ALT-SC1sg-DIS.PRES-*drink*-FV
 ‘I drink just now’
 ‘I drink right now’ (ALTERATIVE, Habituality, temporality)

Example (5.43) implies ‘you see me with a glass and I am drinking’ so the effect of *khona nyalo* is to emphasize current temporality.

- (5.43) *Ngi-ya-nats-a* *khona nyalo*
 SC1sg-DIS.PRES-*drink*-FV ADV.*right now*
 ‘I drink right now!’ (Lit: ‘here and now’)
 ‘I drink’ (Temporality)

Example (5.44) means ‘I am drinking now (at this moment)’. Temporality and ALTERATIVE aspect are encoded by *-se-* (and PRESENT tense) which indicates a switch of polarity from not drinking alcohol to drinking it, as it is unlikely to be a change of activity because the

⁴⁷ This was clear from the elicitation of this example (5.41) where visual prompts were used.

⁴⁸ The sense of ‘right now’ is usually encoded by *khona nyalo* but this sense has been attributed to *manje* and it would be interesting to establish whether *khona manje* would be acceptable? By combining *khona* with an adverb of time or space, a sense of precision is expressed i.e. *khona lapha* (‘right here’).

relevance would be questionable (? ‘I cooked but now I drink’). Although not attested, I would posit that if another dynamic verb was used, such as *ku-gijim-a* ‘to run’, then an activity switch could be implicitly encoded (5.45).

- (5.44) *Sé-ngi-ya-nats-a* *khona nyalo*
 ALT-SC1sg-DIS.PRES-*drink*-FV ADV.*right now*
 ‘I drink right now’ (ALTERATIVE, temporality)

- (5.45) *Sé-ngi-ya-gijim-a* *khona nyalo*
 ALT-SC1sg-DIS.PRES-*run*-FV ADV.*right now*
 (I walked but) ‘right now I run’ (ALTERATIVE, temporality)

Examples (5.46) and (5.47) were paired to highlight the contrast between *-se-* being present or absent and without *khona nyalo* as in (5.43) to (5.45). Example (5.46) can be interpreted in either of two ways but both interpretations are ALTERATIVE because of the presence of *-se-*. One is ‘I wasn’t drinking (alcohol) before, but I do now’, which stresses ALTERATIVE aspect with a polarity switch of negative to positive and the other is ‘I wasn’t drinking but I am now (at this moment)’ which stresses temporality but still encodes ALTERATIVE. The aspect marker *-se-* is encoding ALTERATIVE aspect and temporality and which sense is highlighted (foregrounded) will depend on context.

- (5.46) *Se-ngi-ya-nats-a*
 ALT-SC1sg-DIS.PRES-*drink*-FV
 ‘I drink just now’ (ALTERATIVE, temporality)

Example (5.47) contrasts with (5.46) having dropped the ALTERATIVE aspect marker so temporality is no longer stressed and ALTERATIVE aspect is not encoded.

- (5.47) *Ngi-ya-nats-a*
 SC1sg-DIS.PRES-*drink*-FV
 ‘I drink’ (Habituality, temporality)

For the final two examples I included a complement (a locative construction) and the results were as (5.37) and (5.38) above so the complement had no effect on the temporal adverb or aspectual marker:

- (5.48) *Nyalo* *ngi-nats-a* *e-n-dl-ini*
 ADV.now SC1sg-drink-FV LOC-9-house-LOC
 ‘I now drink in the house’ (Habituality, Alterativity, temporality)

- (5.49) *Nyalo* *se-ngi-nats-a* *e-n-dl-ini*
 ADV.now ALT-SC1sg-drink-FV LOC-9-house-LOC
 ‘Just now I drink in the house’ (ALTERATIVE, Habituality, temporality)

The data are presented in tabular form in Table 5.1:

Abbreviated headings:

Temp	Temporality
Hab	Habituality
ALT	ALTERATIVE
Alt	Alterativity
PERS	PERSISTIVE
Pers	Persistivity

		Temp	Hab	ALT	Alt	PERS	Pers
<i>nyalo</i> , -se-, -ya-	(5.33)	X		X			
<i>nyalo</i> , -se-, -ya-	(5.38)	X	X	X			
<i>manje</i> , -se-, -ya-	(5.42)	X	X	X			
<i>nyalo</i> , -ya-	(5.34)	X			X		
<i>nyalo</i> , -ya-	(5.37)	X	X		X		
<i>nyalo</i> , -sa-	(5.39)	X				X	
<i>nyalo</i> , <i>solo</i> , -ya-	(5.40)	X					X
<i>manje</i> , -ya-	(5.41)	X	X		X		
-ya-, <i>khona</i> , <i>nyalo</i>	(5.43)	X					
-se-, -ya-, <i>khona</i> , <i>nyalo</i>	(5.44)	X		X			
-se-, -ya-, <i>khona</i> , <i>nyalo</i>	(5.45)	X		X			
-se-, -ya-	(5.46)	X		X			
-ya-	(5.47)	X	X				
- <i>nyalo</i> -, Comp	(5.48)	X	X		X		
- <i>nyalo</i> -, -se-, Comp	(5.49)	X	X	X			

Table 5.1 The Role of the Temporal Adverbs *nyalo* and *manje* and the ALTERATIVE marker

The table records temporality in all sixteen examples and confirms that ALTERATIVE is only encoded in those expressions containing the aspect marker *-se-* although it does not analyse the connectedness function of *nyalo* and *-se-* together as only examples (5.33) and (5.34) are in context. Context is important as is shown by Habituality which is not grammaticalized in siSwati and is not indicated in either contextualized example, (5.33) and (5.34) but it is indicated in the basic forms with the same markers (5.38) and (5.37). However, example (5.38) with *nyalo* and (5.42) with *manje* are profiled the same as would be expected for synonyms and this is repeated with (5.37) and (5.41).

5.4 Phonological change of the ALTERATIVE *-se-*

This section investigates the dual roles of *-se-* as ALTERATIVE aspect marker and auxiliary and how it undergoes phonological changes in certain environments (Ziervogel and Mabuza, 1976: 122 & 111) such as non-verbal constructions and the occupation of TAM slot four of the verbal template. The examples in this section describe its contrasting behaviour when performing these two roles. As was described in section 5.1 (Introduction) analytic forms in which *-se-* appeared as an auxiliary have reduced to contracted forms in which *-se-* acts as an ALTERATIVE aspect marker:

(A) When the subject concord of the lexical verb in a compound form is a single vowel, the *-e* reduces:

(5.50) *S-u-nats-a* (U-se u-nats-a > u-su-nats-a > s-u-nats-a)
 ALT-SC2sg-drink-FV
 ‘Then you drink’

(B) When the lexical verb is in PARTICIPIAL mood for noun classes 1 and 6 the *-e* reduces:

(5.51) *A-sa-nats-a* (A-se a-nats-a > a-sa-nats-a)
 SC1-ALT-drink-FV
 ‘(while) he now drinks’

In the INDICATIVE mood with noun class 1 there is no reduction, /e/ surfaces and there is insertion of a homorganic /w/ glide:

- (5.52) *Se-wu-ya-nats-a*
 ALT-SC1-DIS.PRES-*drink*-FV
 ‘He now drinks’

In the INDICATIVE mood with noun class 6 *-se-* appears as *-sa-* in the disjoint PRESENT by analogy as described in 5.5:

- (5.53) *A-sa-ya-nats-a*
 SC6-ALT-DIS.PRES-*drink*-FV
 ‘They now drink’

(C) When *-se-* is followed by a syllable containing *-u* regressive partial assimilation occurs:

- (5.54) *So-wu-nats-ile* ⁴⁹
 ALT-SC2sg-*drink*-DIS.PERF
 ‘You have already drunk’

- (5.55) *So-ku-nga-nats-a*
 ALT-SC15-POT-*drink*-FV
 ‘It can already drink’

The ALTERATIVE marker *-se-* can appear in initial slot one (5.56) or TAM slot four (5.57) as aspect marker or final slot eight (5.69) as auxiliary:

- (5.56) *Se-ni-hamb-a* *kakhulu*
 ALT-SC2pl-*go*-FV ADV.*greatly*
 ‘You are going too fast’

As described in 4.5 in the negative conjugation in siSwati the ALTERATIVE indicates an activity change from positive to negative and is encoded by *-se-* or *-sa-* depending on whether or not the construction is verbal. Furthermore, as described in 4.7 the negative PERSISTIVE has an Exclusive sense so when occupying slot four of the linear verbal

⁴⁹ There is an effect of the following vowel /u/ on the preceding phonological context and in view of the labial quality of the vowel this results in insertion of labial glide /w/ but also leads to partial regressive vowel assimilation of the preceding front mid vowel /e/ to the back mid vowel /o/ in the context of the high back vowel /u/. The process is probably the spreading of a feature [+back] or possibly [+round] from the /u/ to the /e/. In this analysis I have not undertaken a detailed investigation of the phonology so I have no explanation for the appearance of these features in these contexts and there may be some wider language change in progress.

template, *-se-* becomes *-sa-* resulting in the ambiguity seen in (5.57). This phonological change in *-se-* takes place because TAM slot four is usually occupied by formatives with FV /a/ and so by analogy *-se-* appears as *-sa-* (see section 5.5):

- (5.57) *A-ka-sa-phek-i*
 NEG-SC1-ALT/PERS-cook-NEG.FV
 ‘She no longer cooks’
 ‘She still does not cook’
 ‘She is still to cook’

In a copula non-verbal construction the situation is reversed with *-se-* remaining unchanged and *-sa-* becoming *-se-* which also results in ambiguity:

- (5.58) *A-ka-se-kho*
 NEG-SC1-ALT/PERS-ADV.here
 ‘She is no longer here’
 ‘She is still not here’

In the positive a similar phonological process occurs:

- (5.59) *U-sa-phek-a*
 SC1-PERS-cook-FV
 ‘She still cooks’
- (5.60) *U-se-khona*
 SC1-PERS-ADV.here
 ‘She is still here’

The positive examples (5.59) and (5.60) can only be PERSISTIVE as the ALTERATIVE marker could appear word-initially in both instances:

- (5.61) *Se-wu-phek-a*
 ALT-SC1-cook-FV
 ‘She now cooks’
- (5.62) *Se-wu-khona*
 ALT-SC1-ADV.here
 ‘She is now here’

The ALTERATIVE morpheme *-se-* appears word-initially in both the conjoint and disjoint PRESENT:

- (5.63) *Se-ngi-(ya)-nats-a*
 ALT-SC1sg-(DIS.PRES)-*drink*-FV
 'I am drinking just now'

A possible explanation is that in (5.63) *-se-* is categorized as ALTERATIVE aspect marker and the form has reduced from a full form in which *-se-* was acting as an auxiliary:

- (5.64) °*Ngi-se* *ngi-ya-nats-a*
 SC1sg-AUX.ALT SC1sg-DIS.PRES-*drink*-FV
 'Just now I am drinking'

Example (5.64) is not attested but hypothetical (marked by °) and shows *-se-* as an underlying auxiliary with its own subject marker. Historically this could reflect a development where over time, the subject concord of the auxiliary was dropped as superfluous to the subject concord of the lexical verb. See section 4.2 for a description of the possible grammaticalization process which gave rise to the ALTERATIVE aspect marker *-se-*. The ALTERATIVE *-se-* is analysed as an auxiliary in the following hypothetical example:

- (5.65) °*Ngi-se* *ngi-khona*
 SC1sg-AUX.ALT SC1sg-ADV.*here*
 'I am now here'

I suggest that the ALTERATIVE *-se-* at one time acted as an auxiliary in such a construction, and that over time the full form by dropping one or other of the subject concords reduced to (5.66) and (5.67).

- (5.66) *Ngi-se-khona*
 SC1sg-PERS-ADV.*here*
 'I am still here'

- (5.67) *Se-ngi-khona*
 ALT-SC1sg- ADV.*here*
 'I am now here'

In (5.65) *-se-* is analysed as an auxiliary but as an aspect marker and bound morpheme in the reduced form (5.66). Having reduced the ALTERATIVE was expressed in two forms (5.66) and (5.67) and so to avoid the redundancy of both forms being ALTERATIVE the

PERSISTENT sense was adopted. This would explain why both *ngi-sa-khona* and *ngi-se-khona* are acceptable and that *ngi-sa-khona* indicates emphasis as described in 4.5 whereas the ALTERNATIVE form can indicate emphasis lexically with the adverb *nyalo* as in:

- (5.68) *Se-ngi-khona* *nyalo*
 ALT-SC1sg-ADV.here ADV.now
 'I am here right now'

When *-se-* is part of a non-verbal form as in (5.68) but not acting as auxiliary, it acts as an aspect marker (a bound morpheme) but when *-se-* acts as an auxiliary, it can co-occur with PERSISTIVE aspect marker *-sa-*:

- (5.69) *Nga-se* *ngi-sa-nats-a*
 REM.PAST.SC1sg-AUX.ALT SC1sg-PERS-*drink*-FV
 ‘Then I still drink’

The following example (5.70) is an illustration that in situations where an analytic form contracts the auxiliary and ALTERATIVE aspect marker drops the subject concord and this can result in an apparent co-occurrence of the ALTERATIVE and PERSISTIVE aspect markers but in (5.70) *-se-* has become *-sa-* in TAM slot four to encode negative ALTERATIVE. The second verb in this expression is in PARTICIPIAL mood:

- (5.70) *Wa-ngi-khandz-a* *se-ngi-nga-sa-hamb-i*
 REM.PAST.SC1-OC1sg-*find*-FV ALT-SC1sg-NEG-ALT-*go*-NEG.FV
 'He found me while I had decided no longer to go'
 (Ziervogel and Mabuza, 1976: 158)

This section has looked at phonological change undergone by *-se-* in certain environments and described the semantic effects including ambiguity. The aspect marker *-se-* has dual roles as ALTERATIVE aspect marker and auxiliary and there are situations where analytic forms with *-se-* as an auxiliary have contracted and resulted in *-se-* switching to the role of aspect marker. In the negative ALTERATIVE *-se-* becomes *-sa-* by analogy as morphemes occupying TAM slot four all have a final /a/ and this analogical change results in ambiguity with the negative PERSISTIVE. The dual roles of auxiliary and aspect marker are important as when *-se-* is an auxiliary it can co-occur with the PERSISTIVE aspect marker which it cannot do as ALTERATIVE aspect marker.

In the next section I describe my re-analysis of the siSwati TAM system to accommodate Exclusivity as a sub-sense of the ALTERATIVE aspect.

5.5 The ALTERATIVE Exclusivity sub-sense

In this section and the five sub-sections which follow I will make the case for eliminating the EXCLUSIVE as a distinct aspect and re-classifying it as a sub-sense of the ALTERATIVE by providing a series of analyses describing the morphology, semantics and aspectuality of the positive and negative forms of the Exclusivity sub-sense.

In the negative ALTERATIVE *-se-* becomes *-sa-* for phonological reasons where it occupies TAM slot four of the verbal template. Other TAM markers which can occupy this slot are:

<i>-ya-</i>	Disjoint PRESENT
<i>nga-</i>	CONDITIONAL/POTENTIAL
<i>-ka-</i>	PERFECT NEGATIVE
<i>-ta(wu)-</i>	IMMEDIATE FUTURE
<i>-ya(wu)-</i>	REMOTE FUTURE

For other variants of the FUTURE tense markers see chapter two but the selection of markers shows that in verbal constructions the occupation of TAM slot four is exclusively by markers ending in a vowel /a/ so it is natural that *-se-* becomes *-sa-* by analogy:

- (5.71) *A-ngi-sa-nats-i*
 NEG-SC1sg-ALT/PERS-*drink*-NEG.FV
 ‘I no longer drink’
 ‘I still do not drink’

The PERSISTIVE marker *-sa-* becomes *-se-* and the negative marker *-nga-* becomes *-nge-* (5.72) in non-verbal constructions:

- | | |
|---------------------------|--------------------------|
| (5.72) <i>A-se-kho</i> | <i>A-nge-kho</i> |
| SC1-PERS-ADV. <i>here</i> | SC1-NEG-ADV. <i>here</i> |
| ‘He is still here’ | ‘He is not here’ |

During my fieldwork I heard the following expression:

- (5.73) *U-nga-dlal-a* *tin-goma* *nyalo*
 SC2sg-POT-play-FV 10-music (songs) ADV.now

a-ngi-sa-tadish-i
 NEG-SC1sg-PERS/ALT-study-NEG.FV

‘You can play music now I am still not studying’
 ‘You can play music now I am no longer studying’

The PERSISTIVE *-sa-* with a negative tense can encode negative PERSISTIVE (‘still’) or it may be the phonologically altered ALTERATIVE morpheme encoding negative ALTERATIVE (‘no longer’) with a connection between playing music and studying indicated by the adverb *nyalo*. If the speaker had wished to avoid the ambiguity of the two meanings, he could have used another verb such as *ku-cedz-a* (‘to finish’) with positive polarity as in example (5.74).

- (5.74) *U-nga-dlal-a* *tin-goma* *nyalo*⁵⁰
 SC2sg-POT-play-FV 10-music (songs) ADV.now

se-ngi-cedz-ile *ku-tadish-a*
 ALT-SC1sg-finish-DIS.PERF 15-study-FV

‘You can play music now I have finished studying’

Context and prior knowledge can disambiguate expression (5.73) but in this discussion I argue for eliminating the EXCLUSIVE as a separate aspect and partly base my argument on the phenomenon of phonological change of the ALTERATIVE aspect marker in certain environments which has led to the classification of EXCLUSIVE as a separate aspect. The EXCLUSIVE is not an aspect which is encoded morphologically in siSwati and the standard grammars are confusing regarding this aspect or so-called implication. Rycroft states *-se-* translates as ‘now’ and ‘already’ in the ‘positive exclusive implication’ and ‘not yet’ with negative tense (Rycroft, 1981: 86). Doke states that the EXCLUSIVE encodes the action and implies it has definitely not been going on previously in his description of the negative

⁵⁰ A key issue is that both *nyalo* and *-se-* are present. I asked my consultant whether either could appear alone and if so what would be the semantic effect. She advised that both *nyalo* and *-se-* are needed. The explanation is that a connection has to be made between ‘play music’ and ‘finished studying’ otherwise the expression is semantically unacceptable. This issue was further explored in section 5.3.

form (Doke, 1947: 179). In my analysis, when acting as an aspect marker *-se-* can encode either ALTERATIVE or Exclusivity as in:

- (5.75) *Se-ngi-phek-ile*
 ALT-SC1sg-cook-DIS.PERF
 ‘I have now cooked’ (ALTERATIVE)
 ‘I have already cooked’ (Exclusivity sub-sense)

The ALTERATIVE encodes a change of activity or polarity so the meaning of example (5.75) is that the speaker had previously not cooked and/or that she was doing something different (preparing the ingredients). The aspect marker does not encode temporality and it is the PERFECT tense of the verb which connects the action to the present. The Exclusivity sub-sense describes a similar situation, but the emphasis is on there being no need to cook again and it is the exclusion of further activity which gives the sense its name.

5.5.1 Polarity and ALTERATIVE Exclusivity sub-sense

In this section I detail the various strategies for encoding the positive and negative forms of ALTERATIVE Exclusivity.

Being a sub-sense of ALTERATIVE aspect, Exclusivity does not indicate polarity switches like those of the parent aspect but has three variants of negative and positive which are (1) *-se-* (‘already’) or (2) *ekugcineni* (‘at last’) and (3) *sengaka* (‘not yet’). With *-se-* and *ekugcineni* the switch is from not doing to doing with the senses of excluding the need to repeat (*-se-*) or that the action has taken place after a long delay (*ekugcineni*). The third variant is the anticipation of an eventual occurrence of the event (*sengaka*). This sense can be regarded as negative in contrast to the positive state of the former two, but the sense is that eventually a positive switch will occur, so the difference is one of timing rather than polarity. The following example encodes ALTERATIVE (‘now’) and Exclusivity (‘already’):

- (5.76) *Se-ngi-ya-nats-a*
 ALT-SC1sg-DIS.PRES-drink-FV
 ‘I now drink’ ALTERATIVE,
 ‘I already drink’ ALTERATIVE, Exclusivity

The next example (5.77) shows the adoption of an alternative strategy to indicate Exclusivity by using the temporal locative adverb *ekugcineni*:

- (5.77) *Sé-ngi-ya-náts-a* *e-ku-gcin-eni*
 ALT-SC1sg-DIS.PRES-*drink*-FV LOC-15-*finish*-LOC
 ‘I at last drink’

The negative expresses counter-expectational Exclusivity (‘not yet’):

- (5.78) *Ngi-se-nga-ka-nats-i*
 SC1sg-ALT-NEG-PERF-*drink*-NEG.FV
 ‘I do not yet drink’

Nurse states that the negative PERSISTIVE can mean ‘still to do’ which is also counter-expectational and semantically close to negative ALTERATIVE Exclusivity ‘not yet’ (Nurse, 2008: 147):

- (5.79) *A-ngi-sa-nats-i*
 NEG-SC1sg-ALT/PERS-*drink*-NEG.FV
 ‘I am still to drink’
 ‘I no longer drink’

The morpheme *-ka-* is referred to as the EXCLUSIVE morpheme (Taljaard et al., 1991: 152) and the PERFECT NEGATIVE can encode counter-expectational negative ALTERATIVE Exclusivity (Ziervogel and Mabuza, 1976: 188):

- (5.80) *A-ngi-ka-nats-i*
 NEG-SC1sg-NEG.PERF-*drink*-NEG.FV
 ‘I have not (yet) drunk’
 ‘I am not (yet) drunk’

Exclusivity is a sub-sense of the ALTERATIVE and like the main sense describes an activity and/or a polarity switch. The semantics of positive Exclusivity are problematic as the negative *-se-nga-ka-* (‘not yet’) has the meaning of currently not doing something but with a degree of certainty that eventually the activity will take place (Ziervogel and Mabuza, 1976: 188). A positive antonym for Exclusivity is not recognized by Z&M but I have suggested that *ekugcineni* (‘at last’) which has the sense that after an indeterminate period an activity eventually takes place is suitable. The standard grammars state that *-se-* has the meaning of ‘already’ in the past and ‘now’ in the present and the label EXCLUSIVE is not

used, it being restricted to the negative (Ziervogel and Mabuza, 1976: 158) although Rycroft lists *-se-* with a negative tense as negative EXCLUSIVE (my negative ALTERNATIVE) (Rycroft, 1981).

My consultant advised that (5.81) could also be used if the ‘already’ sense of Exclusivity was intended:

- (5.81) *Se-ngi-vele* *ngi-ya-phek-a*
 ALT-SC1sg-DEF.VB.*truly* SC1sg-DIS.PRES-*cook*-FV
 ‘I am already cooking’
 Lit: ‘Now I am indeed cooking’

In (5.82) although the response does not contain the locative temporal adverb *ekugcineni* the ALTERNATIVE Exclusivity sub-sense is indicated by the morpheme *-se-* and REMOTE FUTURE tense:

- (5.82) *Sé-ngi-yawu-nats-a* *émâ-nti*
 ALT-SC1sg-REM.FUT-*drink*-FV 6-*water*
 ‘I will (at last) drink water’

In (5.83) *ekugcineni* (‘at last’) is not used to lexically encode ALTERNATIVE Exclusivity but instead *-se-* and *ku-gcin-a* (‘to finish’) have been selected:

- (5.83) *Í-nyangá* *le-t-á-ko* *sé-ngi-yawu-gcin-a*
 9-*month* RC9-*come*-FV-ENC ALT-SC1sg-REM.FUT-*finish*-FV

ngi-náts-a *émâ-nti*
 SC1sg-*drink*-FV 6-*water*

‘Next month I will at last drink water’

Encoding aspectuality in siSwati can be achieved via an array of strategies. The ALTERNATIVE can be encoded using the aspect marker *-se-* alone or it can be used with *nyalo*, (‘now’) or *manje*, (‘now’); the ALTERNATIVE Exclusivity sense can be encoded by *-se-* (‘already’) or *ekugcineni*, (‘at last’); one informant reduplicated the aspect markers *-sa-* and *-se-* as described in section 5.7; adverbials such as *solo* (‘still, since’) can indicate Persistivity and Alterativity and REMOTE FUTURE tense selection can indicate Exclusivity

as seen above. The use of these various strategies has the effect of encoding, indicating or emphasizing one or other of the features of siSwati ALTERATIVE aspectuality.

5.5.2 Aspectual analysis of ANTERIOR, ALTERATIVE and Exclusivity

Exclusivity is one of several senses encoded by the ALTERATIVE aspect marker *-se-*. The semantic characteristics of the ANTERIOR, ALTERATIVE and Exclusivity senses are demonstrated in a simple timeline diagram.

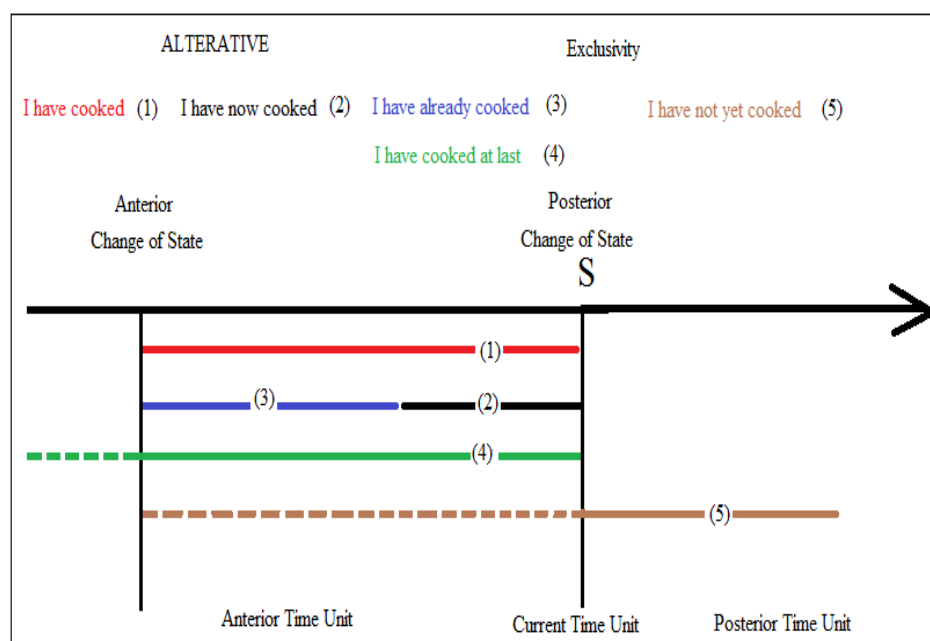


Fig. 5.1 ALTERATIVE aspect and the Exclusivity sub-senses

The timeline is unidirectional and the two vertical lines represent points on the timeline when a change of state occurs. Context will establish how far back or forward in time that will be. S marks the Speech time or the present and the anterior time unit runs from the vertical line to Speech time. The posterior time unit runs from Speech time to an indeterminate future. The lines ⁵¹ represent the period of time in which the activity could be completed for all four senses of the ALTERATIVE and the PERFECT. The red line (1) symbolizes the PERFECT 'I have cooked' so the event has occurred at some point on the red (1) line prior to Speech time but this is a past event with current relevance. The canonical

⁵¹ The lines are coloured and numbered to allow for a black and white print and I reference both in the text.

ALTERATIVE is symbolized by the black line (2) where the activity took place in the past but was completed near to or at Speech time. The Exclusivity sub-senses of the ALTERATIVE are symbolized by either the blue (3), green (4) or brown (5) lines. The blue (3) line terminates at some point before Speech time, so the speaker can state that the activity has ‘already’ been done. The broken green (4) line symbolizes the time period when the speaker intended to act but was prevented. The continuous green (4) line symbolizes the time period during which she had ‘at last’ completed the event. The broken brown (5) line represents the time when the event had ‘not yet’ been done and the continuous brown (5) line posterior to Speech time represents the time when the event is eventually expected to take place.

This analysis adopts the position that the ALTERATIVE aspect marker can encode Exclusivity as there is no distinct EXCLUSIVE aspect in siSwati. The same siSwati expression with *-se-* can encode either ALTERATIVE (‘now’) or the Exclusivity sub-sense (‘already’). The locative temporal adverb *ekugcineni* indicates the ‘at last’ sense and the PERFECT or *se-nga-ka* encode negative ‘not yet’. Context and prior knowledge will establish which sense is appropriate and will determine where on the timeline the change of state occurs. The same aspect marker *-se-* can encode both ALTERATIVE and Exclusivity because the aspectual lines in the above diagram fall within the same anterior time unit.⁵²

5.5.3 A semantic analysis of *se-nga-ka*

In siSwati the negative ALTERATIVE Exclusivity sub-sense is encoded by *-se-nga-ka-* which indicates that a change of activity from negative to positive is anticipated but has not yet been activated.

- | | |
|--|---------------------------------|
| (5.84) <i>Li-se-nga-ka-shon-i</i>
SC5-ALT-NEG-PERF- <i>set</i> -NEG.FV
‘The sun has not yet set’ | <i>li-langa</i>
<i>5-sun</i> |
|--|---------------------------------|

The negative PERFECT can also encode this Exclusivity sense:

⁵² Figure 5.1 shows these aspects in relation to present Speech time but the diagram could be amended to show their relation to past or future Reference time with relative tenses.

- (5.85) *Ema-nti a-nga-ka-gcwal-i*
 6-water SC6-NEG-PERF-*full*-NEG.FV
 ‘The water was not yet full’

The *-ka-* marker encodes both PERFECT and Exclusivity (Ziervogel and Mabuza, 1976: 188) and it is difficult to identify a semantic difference between (5.84) and (5.85) as both sentences refer to an action in process that has not yet been completed. In both there is an anticipated change of state, from the sun not having set, to having set, from the container not being full, to being full. One distinctive feature is that the setting of the sun is inevitable whereas the filling of the water (from a well or tap) is only anticipated and could be terminated which may justify *-se-* in (5.84).

The negative ALTERATIVE Exclusivity sub-sense (5.86) (PERFECTIVE) and (5.87) (IMPERFECTIVE) can be used as alternatives to the FUTURE IN THE PRESENT and FUTURE IN THE PAST IMPERFECTIVE relative tenses (5.88) and (5.89).

- (5.86) *Ngi-se-nga-ka-nats-i*
 SC1sg-ALT-NEG-PERF-*drink*-NEG.FV
 ‘I do not yet drink’

- (5.87) *Be-ngi-se-nga-ka-nats-i*
 PAST-SC1sg-ALT-NEG-PERF-*drink*-NEG.FV
 ‘I was not yet drinking’

These are both absolute tenses (as opposed to relative) in which the deictic centre is the present (Speech time) with Reference time being contemporaneous with Speech time. In (5.86) the speaker is looking at the present (Speech time) when he is not drinking and expects to be drinking in the future. In (5.87) the speaker is looking at a past time period when he was not drinking and the sentence entails that he expected to do so before Speech/Reference time. This is the essence of the negative ALTERATIVE Exclusivity sub-sense which entails that an event will or is expected to eventually occur. The point was made above that the Exclusivity sub-sense is not a true negative in the sense of the BASIC, PERSISTIVE or ALTERATIVE negative forms which are negated versions of the positive. *Se-nga-ka-* has the sense of an event or activity ultimately occurring at some unspecified posterior moment so it is a matter of timing rather than polarity. Rycroft lists *-se-* with a negative tense as negative EXCLUSIVE (my negative ALTERATIVE) (Rycroft, 1981) but it is

- Examples (5.88) and (5.89) are almost the semantic equivalents of (5.86) and (5.87) as they are both IMPERFECTIVE and focused on the internal constituency of the activity, looking from the inside of the event back in time at its beginning and forward to its conclusion (Comrie, 1976: 4). Expressions (5.86) and (5.87) are negative ALTERATIVE Exclusivity and (5.88) and (5.89) are INCEPTIVE. The former are dual-time period aspects connecting a current time point with an expected posterior one (5.86) and an anterior time point with an expected posterior one (5.87), whereas the latter are not as they have INCEPTIVE aspect which encodes the imminent start of an event in a single time period. Examples (5.86) and (5.87) are absolute tenses with Speech and Reference time contemporaneous in the present, whereas (5.88) is absolute and (5.89) is relative with a Reference point that is anterior to Event and Speech time.

Se-nga-ka encodes negative ALTERATIVE Exclusivity sub-sense, and includes the ALTERATIVE aspect marker *-se-*. In certain situations *-se-* becomes *-sa-* when occupying TAM slot four, a phonological change which also occurs before negative *-nga-* according to one author (Ziervogel and Mabuza, 1976: 107). However in the case of *se-nga-ka* it seems implausible that the PERSISTIVE aspect marker would be a constituent of this construction although a counter argument would posit that negative PERSISTIVE has an alternative sense of ‘still to do’ which is also counter-expectational (Nurse, 2008: 147). My position as discussed below is that in this construction (*se-nga-ka*), *-se-* is the ALTERATIVE aspect marker, combining with the other two morphemes (*nga-* and *ka-*) to encode the Exclusivity sub-sense of the negative ALTERATIVE.

Initial	Subject	Negative	Tense/aspect	Object	Root	Extension	Final	Suffix
1	2	3	4	5	6	7	8	9
<i>be</i>	<i>ngi</i>		<i>se-nga-ka</i>		<i>nats</i>		<i>i</i>	

Table 5.2 The negative ALTERATIVE *se-nga-ka* and the siSwati verbal template

Using example (5.87) above, and allocating three markers to slot four is possible according to Nurse but rare (Nurse, 2008: 37) but if *-nga-* is a negative marker it should go into slot three. The PERFECT marker *-ka-* is a tense/aspect hybrid marking negative polarity and is referred to in the standard grammars as the EXCLUSIVE marker (Taljaard et al., 1991: 152). Another possibility would be to classify *-nga-* as CONDITIONAL/POTENTIAL. However I consider it implausible that *-nga-* here is a CONDITIONAL marker and would posit that by virtue of it being a three-part construction it is in order for a negative marker to lodge in slot four. My argument against such a solution is semantic, because the CONDITIONAL aspect describes an event that has been prevented from occurring whereas the Exclusivity sub-sense indicates an event that has not yet occurred but is expected to do so in the future and clearly these are conflicting senses. In an analysis of *se-nga-ka* all three morphemes are difficult to categorize. The first marker could be PERSISTIVE or ALTERATIVE, the second CONDITIONAL or negative and the third negative, PERFECT or EXCLUSIVE (Exclusivity in my re-analysis) but the analysis I propose is ALT-NEG-PERF although it should be treated with circumspection as it is not satisfying to have several morphemes in one slot as this rather defies the purpose of the model which is to allocate each morpheme to its own slot. In support of the above analysis however, the situation with negative markers is relevant as they are not restricted to slot three but can be located in the initial (1), final (8) and suffix (9) slots (see section 2.2.3.2) and so it cannot be claimed that the model always provides a correctly ordered slot for each morpheme.

5.5.5 Re-analysis of the siSwati aspectual taxonomy

In this section I describe how my re-analysis of the siSwati aspectual taxonomy accommodates the removal of the EXCLUSIVE as a discrete aspect and its substitution by the ALTERATIVE Exclusivity sub-sense.

In the positive conjugation the ALTERATIVE Exclusivity sub-sense is encoded by various strategies but often with the temporal locative *ekugcineni*. In English the positive Exclusivity antonym for ‘not yet’ is not straightforward and in siSwati the antonym for negative *se-nga-ka* is also problematic. I posit that *ekugcineni* is the closest positive antonym semantically despite being lexical. Aspectually it indicates an activity switch that has been achieved after delay or postponement, a polarity switch from negative to positive and means that something has happened ‘at last’:

- (5.90) *E-ku-gcin-eni* *ba-hamb-ile*
 LOC-15-finish-LOC SC2-travel-DIS.PERF
 ‘They have gone at last’

Positive Exclusivity can also mean ‘already’ when it is encoded by grammaticalized *-se-*:

- (5.91) *Se-ba-hamb-ile* ⁵³
 ALT-SC2-travel-DIS.PERF
 ‘They have already gone’

These two examples express Exclusivity from different cognitive perspectives. In (5.90) the speaker is looking back at a past Event which took place after a delay from an earlier point, and this Event is viewed from the perspective of a present Reference time contemporaneous with Speech time and focuses on the time between the earlier time and the Event. In (5.91) the speaker is also looking back at a past event from the perspective of Speech time contemporaneous with Reference time but focuses on the time between the Event and Speech/Reference time.

Table 5.3 illustrates how Exclusivity as a sub-sense of the ALTERATIVE fits into my analysis of the two aspect markers which are the subject of this study (the full version of the analytical process is described in section 2.2.3.2):

⁵³ Examples (5.90) and (5.91) can have a stative interpretation in which case tense shifts to the present: ‘They are away at last’, ‘They are already away’ and the context will determine which meaning is intended.

	POSITIVE	NEGATIVE
BASIC	<i>ngi-(ya)-phek-a</i> SC1sg-(DIS.PRES)-cook-FV 'I cook/I am cooking'	<i>a-ngi-phek-i</i> NEG-SC1sg-cook-NEG.FV 'I do not cook/I am not cooking'
PERSISTIVE	<i>ngi-sa-phek-a</i> SC1sg-PERS-cook-FV 'I still cook'	<i>a-ngi-sa-phek-i</i> NEG-SC1sg-PERS-cook-NEG.FV 'I still do not cook'
ALTERATIVE Main sense	<i>se-ngi-ya-phek-a</i> ALT-SC1sg-DIS.PRES-cook-FV 'I now/then cook'	<i>a-ngi-sa-phek-i</i> NEG-SC1sg-ALT-cook-NEG.FV 'I no longer cook'
ALTERATIVE Exclusivity sub-sense	<i>se-ngi-ya-phek-a</i> ALT-SC1sg-DIS.PRES-cook-FV 'I already cook'	<i>ngi-se-nga-ka-phek-i</i> SC1sg-ALT-NEG-PERF-cook-NEG.FV 'I do not yet cook'

Table 5.3 The PERSISTIVE and ALTERATIVE aspects including Exclusivity sub-sense

The negative ALTERATIVE and negative PERSISTIVE are morphologically identical because of the phonological change undergone by *-se-*. In section 5.5 I have described how *-se-* appears as *-sa-* in TAM slot four by analogy and how the PERSISTIVE aspectual marker *-sa-* generally occupies this slot although the ALTERATIVE aspectual marker *-se-* can occupy slot four as well as the initial slot one. When it occupies slot four, it can become *-sa-*, but not in non-verbal constructions or with statives.⁵⁴ I therefore posit that when the ALTERATIVE aspect marker appears in the negative as *-sa-* it has undergone phonological change because of the word medial position by analogy. This is an acceptable solution but it is not without difficulties as the arrangement means that negative PERSISTIVE and negative ALTERATIVE are only distinguishable through context. As Nurse observes, and I have discussed in 4.7, several authors have pointed out that semantically it is inaccurate to refer to negative equivalents as in a discourse context affirmative forms can be negated in different ways so there is not always a one-to-one match between positive and negative TAM markers in Bantu (Nurse, 2008: 196, Contini-Morava, 1989, Fleisch, 2000, Givón, 1975).

The standard grammars claim that *-sa-* and negative tense encode negative ALTERATIVE (called EXCLUSIVE) and this is supported in this analysis with the explanation that *-se-* has undergone phonological change. In Z&M, the negative ALTERATIVE Exclusivity sub-sense *se-nga-ka* markers are said to comprise of the PERSISTIVE *-sa-* which has undergone

⁵⁴ In section 4.6 an apparent exception was identified where *-se-* appears unchanged phonologically in TAM slot four and I discussed whether it encoded PERSISTIVE or ALTERATIVE.

phonological change before *-nga-* to become *-se-* (they use their own terms as described above) (Ziervogel and Mabuza, 1976: 107). Whilst this change can take place before the negative marker, in this case I adhere to the position that with *se-nga-ka* the aspect marker *-se-* appears as *-se-* in view of my analysis which classifies this form as negative ALTERNATIVE Exclusivity sub-sense although I have discussed the alternative view which implements Z&M's claim in section 5.5.4 and consider the issue not to be conclusively resolved.

There are three senses to be encoded in an analysis of PERSISTIVE and ALTERNATIVE aspectuality; 'still', 'now' and 'already' and their negative counterparts 'still not', 'no longer' and 'not yet'. The siSwati aspectual markers *-sa-* and *-se-* can encode all three senses as Table 5.3 confirms although there are lexical alternatives.

5.6 Constructions and compounds with the ALTERNATIVE auxiliary *-se-*

In this section I analyse the various roles of *-se-* as aspect marker and auxiliary in compound verb forms and constructions such as *bese* and *ngase*. This versatile morpheme appears in verb forms and adverbial constructions, and its co-occurrence with temporal adverbs such as *nyalo* and the conjunction/auxiliary *solo* has been analysed in sections 5.3 and 4.10. Here its role as ALTERNATIVE aspect marker and auxiliary is investigated when bound to the PAST tense marker *be-* or a PAST tense concord as observed in section 5.2.1 which described the semantics of *-se-*. In compound tense forms, it can act as auxiliary and aspect marker and these roles are investigated in the second half of this section.

Se- when performing the role of auxiliary and/or aspect marker normally needs to be bound to other morphemes to form a viable construction. It performs such a role in *be-se* in which *-se-* is an auxiliary and aspect marker and *be-* is a PAST tense marker as in (5.92):

- (5.92) *Be-se* *i-ya-hlom-a* *im-phi*
 PAST-AUX.ALT SC9-DIS.PRES-prepare-FV 9-army
 'Then the army prepared for war'

I have analysed *be-se* in (5.92) as constituting a PAST tense marker and auxiliary which encodes ALTERNATIVE aspect. *Be-se* as described in the historical analysis below in (5.93)

and (5.94), is a construction and would not naturally comprise two auxiliaries and *be-se* itself acts as an auxiliary and a temporal adverb or connective. *Be-se* is difficult to categorize in terms of word class as it can be described as an adverb but it also acts as a conjunction. *Be-se* is not listed in either siSwati or isiZulu dictionary (Rycroft, 1981, Doke et al., 1990), so it appears to be two morphemes (*be-se*), and I analyse it as a construction of two morphemes marking tense and aspect. *Be-* cannot stand alone and it appears as a bound morpheme as does *-se-*. Both can act as aspect markers or auxiliaries so in the conjunction *nga-be* ('should'), *be-* is the auxiliary but in *be-se* ('then'), *be-* acts as a tense marker and *-se-* as aspect marker and auxiliary. The origins of *be-se* throw light on these issues. Examples (5.93) and (5.94) are both reconstructions marked ° (Ziervogel and Mabuza, 1976: 118):

(5.93) °*I-b-e* *i-se* *i-ya-hlom-a* *im-phi*
 SC9-*be*-FV SC9-AUX.ALT SC9-DIS.PRES-*prepare*-FV 9-*army*
 'Then the army prepared for war'

(5.94) °*i-be* *i-se* > *ibese* > *bese*

In (5.94) the compound verbal form has contracted by losing the subject concord of the lexical verb which in turn has been re-analysed as a non-verbal construction by dropping the second subject concord but see (5.108) below where the noun class 1 subject concord is shown as optional. Z&M describe *be-se* as a compound of *be-* and *-se-* so I classify *-se-* as an auxiliary and ALTERATIVE aspect marker and *be-* as a PAST tense marker. *Be-se* is followed by positive INDICATIVE forms or negative PARTICIPIAL (Ziervogel and Mabuza, 1976: 118) as in (5.95). Classifying *be-se* as above recognizes the stages reached by both constituent markers in their grammaticalization.

(5.95) *Be-se* *a-nga-ba-bit-i*
 PAST-AUX.ALT SC1-NEG-OC2-*call*-NEG.FV
 'Then he does not call them'

In (5.96) repeated from section 5.2.1 *bese* introduces a sequential clause after an initial clause with PRESENT tense (Ziervogel and Mabuza, 1976: 154):

- (5.96) *Ba-condz-a* *le* *ng-e-sang-w-eni*
 SC2-go towards-FV ADV.there ADV.PFX.by-LOC-5.gate-PLC-LOC
- be-se* *ba-ya-w-etful-a* *um-tfwalo* *wa-bo*
 PAST-AUX.ALTSC2-DIS.PRES-OC3-put down-FV 3-luggage PC3-PS2

‘They go towards the gate and then put down their luggage’

A review of Doke’s analysis of the REMOTE PAST CONTINUOUS in isiZulu as shown below (no tonal diacritics are marked by Doke and the morphological glosses are mine) reveals similarities with these constructions (Doke, 1947) and Doke’s analysis differs from that of Z&M. Example (5.97) which Z&M also term the REMOTE PAST CONTINUOUS is the contracted version of (5.98) and the PAST tense concord *ngá* and the subject concord *ngi* are contiguous, with both markers encoding subject person and number. Its compound nature is obscured as it drops the auxiliary *be-*.

- (5.97) *Ngá-ngi-náts-a*
 REM.PAST.SC1sg-SC1sg-drink-FV
 ‘I was drinking’

The full (or analytic) form (5.98) is virtually unknown in modern speech according to Z&M and indicates an unbounded event (IMPERFECTIVE).

- (5.98) *Ngá-b-é* *ngí-náts-a*
 REM.PAST.SC1sg-be-FV SC1sg-drink-FV
 ‘I would be drinking’
 ‘I was drinking’ (Ziervogel and Mabuza, 1976: 103)

My translation is based on fieldwork data and as is usual with the analytic forms the CONDITIONAL is encoded (see sections 6.4 and 6.5). Examples (5.99) and (5.100) are described as full and (5.101) as contracted (Doke, 1947: 182):

- (5.99) *Nga-be-se* *ngi-thand-a*
 REM.PAST.SC1sg-PAST-AUX.ALT SC1sg-love-FV
 ‘I was then loving’
- (5.100) *Nga-ye-se* *ngi-thand-a*
 REM.PAST.SC1sg-PAST-AUX.ALT SC1sg-love-FV
 ‘I was then loving’

(5.101)	<i>Nga-se</i>	<i>ngi-thand-a</i>
	REM.PAST.SC1sg-AUX.ALT	SC1sg-love-FV
	'I was then loving'	

Examples (5.99) to (5.101) are not conjugated as Z&M's continuous tenses with *be-* in siSwati whose versions exclude word-final *-se-* (the ALTERATIVE auxiliary). It is possible that there are two separate processes involved but siSwati and isiZulu are so closely related it is unlikely. I have analysed *-be-* and *-ye-* as past markers. *Be-* is the PERFECT form of the verb *ku-b-a* ('to be') and *ye-* is the PERFECT form of the verb *ku-y-a* ('to go'). *Se-* is an auxiliary encoding ALTERATIVE and the verb from which it grammaticalized was probably *ku-s-a* ('to dawn') as described in 4.2. The lexical verb in the isiZulu examples is *uku-thand-a* ('to love') and the ALTERATIVE auxiliary (*-se-*) follows the PAST tense concord (first person singular).

In a consultant review ⁵⁵ I encountered a series of responses with bi-clausal sentences similar to the construction seen in (5.102) (which is from Z&M) comprising the ALTERATIVE auxiliary *-se-* and a prefixal PAST tense concord (*ta-se*) which was semantically and syntactically similar to *bese* and its role as a conjunction which semantically linked situations and encoded ALTERATIVE aspect.

(5.102)	<i>Ta-se</i>	<i>ti-nga-ka-dl-i</i>		
	SC10.REM.PAST-AUX.ALT	SC10-NEG-NEG.PERF-graze-NEG.FV		
	<i>ti-nkomo</i>	<i>na-yi-cal-a</i>	<i>ku-n-a</i>	<i>im-vula</i>
	10-cattle	ADV.PFX.and-SC9-begin-FV	15-rain-FV	9-rain
	‘The cattle had not grazed when the rain started to fall’			
	(Ziervogel and Mabuza, 1976: 159)			

In (5.103) *wa-se* agrees with the class 1 subject marker in *u-ya-m-phendvul-a* in contrast to (5.95) where *be-se* is employed with class 1 subject marker although in that example the verb form is PARTICIPAL mood and has a sequential sense 'then'. The sense in (5.103) is consequential i.e. because Sizakele was busy the visit was cancelled.

⁵⁵ These examples were gathered during a consultant review investigating reported and direct speech and the consequential sense of ALTERATIVE *-se-* 'then' but the data was unproductive in respect of reported speech.

(5.103)	<i>Sizakele</i> 1a. <i>Sizakele</i>	<i>u-m-tjel-e</i> SC1-OC1-tell-FV	<i>u-tsi</i> SC1-say	<i>u-to-b-e</i> SC1-IMM.FUT-be-FV
	<i>ama-tasatasa</i> ⁵⁶ 6-chores	<i>li-langa</i> 5-day	<i>l-onkhe</i> QC5-QP.all	
	<i>wa-se</i> REM.PAST.SC1-AUX.ALT	<i>u-ya-m-phendvul-a</i> SC1-DIS.PRES-OC1-answer-FV	<i>u-tsi</i> SC1-say	
	<i>“A-ngeke</i> ⁵⁷ NEG-DEF.VB.never	<i>ngi-sa-mu-vakash-el-a”</i> SC1-ALT-OC1-visit-APP-FV		

‘Sizakele told him she was busy all day so he said “I will not visit her then”

In the next example (5.104) *-se-* is employed to encode a consequential sense, as in (5.103), and on both occasions the ALTERATIVE marker combines with a PAST tense concord, in (5.104) it is *-sa-* the subject concord for noun class 7:

(5.104)	<i>Lo-m-phatsi</i> DP1-1-manager	<i>u-tsi-te</i> SC1-say-DEF.VB.until	<i>lo-m-biko</i> DP3-3-report
	<i>a-wu-si-ko</i> NEG-SC3-COP.NEG-ENCL	<i>kahle</i> ADV.good	<i>sa-se</i> REM.PAST.SC7-AUX.ALT
	<i>lesi-sebenti</i> DP7-worker	<i>si-tsi</i> SC7-say	<i>se-si-tawu-phindz-e</i> ALT-SC7-IMM.FUT-repeat-FV
			<i>si-y-ent-a</i> SC7-DIS.PRES-do-FV

‘The manager said the report was no good so the clerk said he would do it again then’

Tense influences the construction with *-se-* and PARTICIPIAL mood may also be influential but it is not possible to use *nga-se* rather than *be-se* in (5.105) and my explanation for this is that the example is a FUTURE construction and it would not be temporally consistent to use a REMOTE PAST form (*nga-se*) indicating ‘then’ between an auxiliary and lexical verb which are both IMMEDIATE FUTURE. If this is the case then the syntactic influence of tense takes priority over the semanticity of being a consequential expression.

⁵⁶ The isiZulu expression for chores is as spoken by the consultant. There is no siSwati version and it is a colloquial borrowed term in modern speech.

⁵⁷ The use of *ngeke* in context does not mean ‘never’ but ‘not now, but later’.

- (5.105) *Leli-phoyisa* *la-tsi* “*Uma* *u-pak-a*
 DP5-*policeman* REM.PAST.SC5-*say* CONJ.*if* SC2sg-*park-FV*
- lapho* *ngi-to-b-e* *be-se*
 ADV.*there* SC1-IMM.FUT-*be-FV* PAST-AUX.ALT
- ngi-ta-ku-boph-a*”
 SC1-IMM.FUT-OC2sg-*arrest-FV*

‘The policeman said “If you park there I will arrest you”

When bound to the PAST tense concord *nga-* the auxiliary *-se-* can encode (or pragmatically enrich?) a ‘consequential’ sense rather than ‘consecutive’ as illustrated in (5.106) also repeated here from section 5.2.1:

- (5.106) *Nga-balek-el-a* *i-nyoka* *nga-se*
 REM.PAST.SC1sg-*run away-APP-FV* 9-*snake* REM.PAST.SC1sg-AUX.ALT
- ngi-nga-val-i* *e-si-bay-eni*
 SC1sg-NEG-*close-NEG.FV* LOC-7-*kraal-LOC*

‘I ran away from a snake and then didn’t close the kraal’

To summarize the above, it would appear that *be-se* is not a straightforward construction as *-se-* can combine with *be-* which is a PAST tense marker or it can combine with a PAST tense concord of various noun classes so that in bi-clausal sentences linked by the conjunction there can be concordial agreement with the subject of the subordinate sentence. *Be-se* appears to be the default form but from the examples above it is not possible to explain this form’s behaviour in all environments and further research is needed to investigate its functionality. It appears that in examples (5.92) and (5.95) which are not bi-clausal, *be-se* does not act as a conjunction but as a temporal adverb and so there is no subject marker agreement and *be-se* is used. In such examples it appears that *be-se* has the simple consecutive sense of ‘then’ but with a PAST tense concord there is a consequential sense (although see exception (5.105) discussed above). All four of the following examples (5.102/4) and (5.106) are consequential with the second event occurring as a result of the first and they appear as such in the analysis in Table 5.4:

- (5.102) It was raining so the cattle did not graze.

- (5.103) Sizakele was busy so the visit was cancelled.
 (5.104) The report was no good so it was done again.
 (5.106) The speaker ran away from the snake so he did not close the kraal.

The following profile summarizes the examples in this section and analyses the prefix in the construction with *-se-* in each case:

Example	Form	PAST tense concord	Tense marker	Semantic role
(5.92)	<i>be-se</i>		PAST	Consecutive
(5.95)	<i>be-se</i>		PAST	Consecutive
(5.96)	<i>be-se</i>		PAST	Consecutive
(5.102)	<i>ta-se</i>	SC10		Consequential
(5.103)	<i>wa-se</i>	SC1		Consequential
(5.104)	<i>sa-se</i>	SC7		Consequential
(5.105)	<i>be-se</i>		PAST	Consequential
(5.106)	<i>nga-se</i>	SC1sg		Consequential

Table 5.4 Profile of constructions with *-se-*

In the first three examples and (5.105) there is no concordial agreement and *be-* is the PAST tense marker but in all other examples there is a PAST tense concord. With the exception of (5.105) the examples with *be-se* are either mono-clausal or the sense is consecutive ‘then’ but this is only a tentative explanation and more contextual examples need to be studied in order to establish the actual position

This notice was seen at Raleigh Firkin Memorial Hospital and supports the above analysis:

(5.107) <i>Fak-e</i> <i>place-FV</i>	<i>li-phepa</i> <i>5-paper</i>	<i>e-m-nyango</i> <i>LOC-3-door</i>	<i>e-si-khats-eni</i> <i>LOC-7-time-LOC</i>	<i>be-se</i> <i>PAST-AUX.ALT</i>
<i>u-hlal-a</i> <i>SC2sg-sit-FV</i>	<i>phansi</i> <i>ADV.down</i>	<i>si-ta-ku-sit-a</i> <i>SC1pl-IMM.FUT-OC2sg-call-FV</i>		<i>uma</i> <i>CONJ.when</i>
<i>umu-tsi</i> <i>3-medicine</i>	<i>w-akho</i> <i>PC3-PS2sg</i>	<i>se-wu-lung-ile</i> <i>ALT-SC3-ready-STAT.PERF</i>		

‘Place the paper in the letter box then sit down and we will call you when your medicine is ready’

When the medicine has changed from being not ready to ready (*se-wu-lung-ile*) the hospital staff will call the patient (a change of state encoded by ALTERATIVE aspect) and *be-se* appears as it does and not as *wa-se* (to agree with *u-hlal-a*) because the sense is consecutive not consequential, i.e. after putting the paper in the box the next action is to sit down and wait to be called.

In the above analysis there is no example in which *be-se* appears in a sentence with a consequential sense and where *be-* would be expected to appear as a PAST tense concord rather than a PAST tense marker. Example (5.108) is from Z&M:

(5.108) <i>Emva</i> <i>LOC.ADV.after</i>	<i>kwa-loko</i> <i>PC15-DP15.that</i>	<i>(u)-be-se</i> <i>(SC1)-PAST-AUX.ALT</i>
<i>a-nga-ba-hlabel-i</i> <i>SC1-NEG-OC2-slaughter-NEG.FV</i>		<i>in-khomo</i> <i>9-beast</i>

‘And after that he won’t slaughter a beast for them’
(Ziervogel and Mabuza, 1976: 154)

Clearly this is consequential and yet *be-se* appears with an optional subject concord which is not REMOTE PAST and appears as a prefix to the construction and I have analysed as shown. My consultant when asked to translate the same expression avoided the use of *be-se* entirely:

- (5.109) *Emva* *kwa-loku* ⁵⁸ *a-ngeke*
 LOC.ADV.*after* PC15-DP15.*this* SC1-DEF.VB.*never*
- a-ba-hlab-ele* *in-khomo*
 SC1-OC2-*slaughter*-PERF.FV 9-*beast*

‘And after that he won’t slaughter a beast for them’

The same construction which avoided *be-se* was used in an expression phrased to bring out the third person plural PAST tense concord:

- (5.110) *Emva* *kwa-loku* *ba-ngeke*
 LOC.ADV.*after* PC15-DP15.*this* SC2-DEF.VB.*never*
- ba-m-hlab-ele* *in-khomo*
 SC2-OC1-*slaughter*-PERF.FV 9-*beast*

‘And after that they won’t slaughter a beast for him’

Although not conclusive it would appear that *bese* when it appears, unlike other subject concords, always consists of the PAST tense marker and not the PAST tense concord and so does not distinguish between a consecutive or consequential sense.

Compound sentences consist of more than one independent clause and can be introduced by various conjunctions, adverbs and auxiliaries including *-se-* (‘already, then’). Others are; *bese* (‘and then’), *futsi* (‘furthermore’), *kumbe* (‘perhaps’) and *nga* or *ngabe* (‘better have’).

- (5.111) *Tim-vu* *ti-ya-banj-w-a*, *se-ti-ya-hlatj-w-a*
 9-*sheep* SC9-DIS.PRES-*catch*-PASS-FV ALT-SC9-DIS.PRES-*slaughter*-PASS-FV
 ‘The sheep are caught then slaughtered’
 (Ziervogel and Mabuza, 1976: 142)

According to Z&M the above example illustrates how the ALTERATIVE aspect marker *-se-* can encode a change of activity (‘caught’ > ‘slaughtered’) and need not encode a polarity switch. The act of catching is completed and is followed by slaughtering. Z&M state that, except for *kumbe*, these words ‘introduce sentences which are continuous of previous

⁵⁸ My consultant used *loku* (‘this’) rather than *loko* (‘that’) but I don’t consider this to be material to the issue under discussion.

actions’ so the marker *-se-* does have a connecting role similar to that of a conjunction as the slaughtering is dependent on the catching even though they are discrete activities.

My consultant’s interpretation differed from Z&M and in an effort to validate my above analysis I included versions with *be-se* and *ta-se*. Example (5.111) with *-se-* the ALTERATIVE aspect marker, was considered grammatically correct with the meaning ‘Sheep are grabbed, now they are slaughtered’. This is a canonical ALTERATIVE sense, encoding temporality as it is a change of state occurring in the present. With *be-se* the meaning is consecutive as Z&M’s:

(5.112) *Tim-vu* *ti-ya-banj-w-a,* *be-se*
 9-sheep SC9-DIS.PRES-*catch*-PASS-FV PAST-AUX.ALT

ti-ya-hlatj-w-a
 SC9-DIS.PRES-*slaughter*-PASS-FV

‘The sheep are caught then slaughtered’

As observed above tense is important when *-se-* appears with the PAST tense concord and so in (5.113) the first clause must be PAST tense but the sense is consequential (as a result of being caught the sheep were slaughtered) not consecutive as in (5.112) or canonical ALTERATIVE as (5.111):

(5.113) *Tim-vu* *ta-banj-w-a,* *ta-se*
 9-sheep REM.PAST.SC9-*catch*-PASS-FV REM.PAST.SC9-AUX.ALT

ti-ya-hlatj-w-a
 SC9-DIS.PRES-*slaughter*-PASS-FV

‘The sheep were caught and (so) they were slaughtered’

Conjunctions, auxiliaries or adverbs can all introduce compound sentences and both *solo* and *-se-* are described as auxiliaries (Ziervogel and Mabuza, 1976: 116). According to Z&M, *-se-* implies that an action (of the main verb) has not been carried out previously which is ALTERATIVE aspect and *solo* indicates that an action is in progress which indicates Persistivity (but it can also indicate Alterativity as described in section 4.10) (Ziervogel and Mabuza, 1976: 158/9).

Z&M describe *-se-* as an auxiliary which is followed by the PARTICIPIAL and whilst it does not take the subject concord it does take the PAST tense concord (Ziervogel and Mabuza, 1976: 121). They state that it is followed by the PARTICIPIAL in all tenses, except one when it is followed by the INDICATIVE PRESENT (both conjoint and disjoint forms). *Se-* usually drops the subject concord but retains the PAST tense concord (Ziervogel and Mabuza, 1976: 121) and encodes ALTERNATIVE ‘now’ in the PRESENT tense and ALTERNATIVE Exclusivity ‘then/already’ in the PAST tense although their term is ‘implication’ rather than aspect (see Table 5.3 above).

In this section I have analysed the various roles of *-se-* as aspect marker and auxiliary in compound verb forms and constructions such as *bese* and *ngase*. I investigated its role as ALTERATIVE aspect marker and auxiliary when bound to the PAST tense marker *be-* or a PAST tense concord.

The following examples of reduplicated aspect markers were from a single informant but later confirmed by my consultant and whilst they may reflect a personal register I consider them to be significant. The reduplicated morpheme is the ALTERATIVE marker in the *se-nga-ka* construction in the first set of examples and in stative forms in the second so both sets occur in distinct environments.

- (5.115) *Ngì-sa-chubek-a* *ne-ku-bon-a*
 SC1sg-PERS-continue-FV ADV.PFX-15-see-FV
- dokotela* *ngako* *ngi-se-se-nga-ka-sebent-i*
 1a-doctor CONJ.therefore SC1sg-PERS-ALT-NEG-PERF-work-NEG.FV

‘I continue to see the doctor so I am still not yet working’

- (5.116) *Ngì-tawu-b-a* *m-dzala* *ku-lo-m-nyaka* *lo-ta-ko*
 SC1sg-IMM.FUT-be-FV 1-adult 15-DP3-3-year RC3-come-ENCL
- ngako* *ngi-se-se-nga-ka-nats-i*
 CONJ.therefore SC1sg-PERS-ALT-NEG-PERF-drink-NEG.FV

‘I will be an adult next year so I still do not yet drink’

- (5.117) *Ngì-nats-a* *ema-philisi* *ngako*
 SC1sg-drink-FV 6-pills CONJ.therefore
- ngi-se-se-nga-ka-sebent-i*
 SC1sg-PERS-ALT-NEG-PERF-work-NEG.FV

‘I am taking the pills so I am still not yet working’

The sentences all encode negative ALTERATIVE Exclusivity sub-sense (*se-nga-ka*). In each case the reduplicated marker is *-sa-* appearing as *-se-* and encoding PERSISTIVE aspect. In example (5.115) Persistivity is also indicated by *ku-chubek-a* (‘to continue’) and in (5.117) the process of taking pills pragmatically indicates continuity. It appears that reduplication of *-se-* can encode PERSISTIVE and ALTERATIVE aspectuality in situations with multiple or sequential activities and this includes polymorphemic constructions such as *se-nga-ka*.

In the stative examples, the ALTERATIVE aspect marker *-se-* becomes *-sa-* in (5.118), as it would do in a non-verbal construction:

- (5.118) *Ngì-sa-lel-e*
 SC1sg-ALT-sleep.STAT.PERF-FV
 ‘I am now sleeping’

In (5.119) the ALTERATIVE marker encodes the Exclusivity sub-sense:

- (5.119) *Ngi-se-lel-e*
 SC1sg-ALT-*sleep*.STAT.PERF-FV
 ‘I already sleep’

But when reduplicated it encodes both ALTERATIVE aspect and PERSISTIVE:

- (5.120) *Ngi-se-se-lel-e*
 SC1sg-PERS-ALT-*sleep*.STAT.PERF-FV
 ‘I already still sleep’

Mere duplication of *-se-* encodes PERSISTIVE aspectuality and this was confirmed by my consultant who stated that (5.120) is used when ‘you are still sleeping’ and that reduplication of *-se-* emphasized Persistivity. For further evidence of *-se-* encoding PERSISTIVE aspect see section 4.6.

The examples in this section are instances of phonological change and reduplication of *-se-* and suggest that reduplication additionally encodes PERSISTIVE aspect rather than merely focusing or emphasising the ALTERATIVE in situations with multiple or sequential activities. As was pointed out in the previous section it is an over-simplification to state that *-sa-* always becomes *-se-* when occupying TAM slot four and further research is needed to establish the precise semantic effect of reduplication of the ALTERATIVE aspect marker before *se-nga-ka*, with statives and elsewhere.

5.8 The morpho-semantic complexity of the dual-time period aspect markers

The next two examples illustrate a feature which connects with section 4.6 in the previous chapter where examples revealed *-se-* encoding the PERSISTIVE. The aspect marker *-sa-* encodes ALTERATIVE (‘now’) in (5.121) with *ku-fundz-a* (‘to study’) and this was repeated with *ku-tadish-a* (‘to study’) in (5.122).

- | | | |
|--|------------------|----------------|
| (5.121) <i>Ngi-sa-fundz-a</i> | <i>e-kolishi</i> | <i>ngako</i> |
| SC1sg-PERS- <i>study</i> -FV | LOC-5.college | CONJ.therefore |
| <i>ngi-se-se-nga-ka-sebent-i</i> | | |
| SC1sg-PERS-ALT-NEG-PERF- <i>work</i> -FV | | |

‘I am now studying at college so I am still not yet working’

(5.122) *Ngì-sa-tadish-a e-kolishi ngako*
 SC1sg-PERS-study-FV LOC-5.college CONJ.therefore

*be-ngi-se-nga-ka-sebent-i*⁵⁹
 PAST-SC1sg-ALT-NEG-PERF-work-FV

‘I am now studying at college so I was not yet working’

The ALTERATIVE marker cannot appear word-medially in the conjoint form of dynamic verbs but can appear word-initially in both the conjoint and disjoint forms. Under the rules listed in section 2.3.1 if the disjoint form were used then the presence of the complement would emphasize the predicate which is not the case in either (5.121) or (5.122). However in both examples *-se-* could appear as prefix (*se-ngi-fundz-a* and *se-ngi-tadish-a*) and as the sense being encoded is ALTERATIVE it is strange these forms have not been used. This could be another example of phonological change (*-se- > -sa-*) or morphological change (*-sa-* encodes ALTERATIVE aspect) which was identified as a possibility in section 4.6 with the PERSISTIVE aspect marker. Another explanation could be that this is *-se-* appearing in slot four as *-sa-* rather than word-initially and that the word order is significant semantically.

The following four expressions show how difficult it is to analyse the semantics of the dual-time period aspect markers, as although all four sentences express essentially the same meaning, one is with *-sa-*, one without and two with *-se-*:

(5.123) *Ngì-tawu-khulum-a na-ye a-sa-fik-ile*
 SC1sg-IMM.FUT-speak-FV ADV.PFX.with-AP1 SC1-PERS-arrive-DIS.PERF
 ‘I will speak to him when he has arrived’
 Lit. ‘I will speak with him (when) he has still arrived’

(5.124) *Ngì-tawu-khulum-a na-ye a-fik-ile*
 SC1sg-IMM.FUT-speak-FV ADV.PFX.with-AP1 SC1-arrive-DIS.PERF
 ‘I will speak to him when he has arrived’
 Lit. ‘I will speak with him (when) he has arrived’

⁵⁹ The form is reduplicated in (5.121) but not (5.122) which is PAST tense but whether it is *be-* which precludes reduplication is not established although it seems likely. The speaker is describing the current situation (*ngì-sa-tadish-a*) so PAST PERSISTIVE would not be semantically acceptable (‘I was still not yet working’)

(5.125) *Ngì-tawu-khulum-a* *na-ye* *(u)ma/na*
 SC1sg-IMM.FUT-*speak*-FV ADV.PFX.*with*-AP1 CONJ.*when*

s-a-fik-ile
 ALT-SC1-*arrive*-DIS.PERF

‘I will speak to him when he has arrived’
 Lit. ‘I will speak with him when he has already arrived’

(5.126) *Ngì-tawu-khulum-a* *na-ye* *(u)ma/na*
 SC1sg-IMM.FUT-*speak*-FV ADV.PFX.*with*-AP1 CONJ.*when*

se-ka-fik-ile
 ALT-SC1-*arrive*-DIS.PERF

‘I will speak to him when he has arrived’
 Lit. ‘I will speak with him when he has already arrived’

These examples show how difficult it is to interpret the sense of siSwati expressions incorporating these two morphemes. Example (5.123) is with *-sa-* (5.124) is without *-sa-* and (5.125) is with *-se-* (which because of coalescence become *s-* before *a-*) and the conjunction *(u)ma* or *na*. Then in (5.126) *-se-* appears before *-ka-*, the third person singular subject concord in the PARTICIPIAL mood with a *k-* to avoid the vowel hiatus with *se-*.⁶⁰ Their sense is that the speaker and hearer are discussing a third party who has yet to arrive and the speaker will talk with the third party when he/she arrives. It is difficult to semantically differentiate these four examples and my consultant did not. However I would posit that the PERSISTIVE in (5.123) is linking two periods, the third party’s immediate arrival and a subsequent period when he has been present for some time and at that point the speaker will speak to him. Expression (5.124) does not refer back to an earlier time but focuses on the time when the speaker will speak to him without delay after his arrival. In examples (5.125) and (5.126) the ALTERATIVE refers to a period when the third party has arrived so there is a change of state as before his arrival he had not arrived and it is after his arrival that the speaker will speak to him. The actual unfolding of events is the same in all four examples and it is the aspectual perspective of the speaker which changes. The PERSISTIVE and ALTERATIVE aspects are semantically distinct but by altering the perspective often either can be used in any given situation.

⁶⁰ This is the correct analysis because **a-se-ka-fik-ile* which places the subject concord word-initially and has the EXCLUSIVE morpheme medially is ungrammatical.

5.9 The REMOTE FUTURE tense and the ALTERATIVE

Example (5.127) is the remote stative FUTURE IN THE PAST compound tense with *be-*:

(5.127) <i>Ngì-yàwù-b-è</i>	<i>sóló</i>	<i>ngì-lêl-è</i>
SC1sg-REM.FUT- <i>be</i> -FV	CONJ. <i>still</i>	SC1sg-STAT.PERF. <i>sleep</i> -FV
'I am still about to sleep'		

Z&M claim that the future constructions with *-ya-* have an implied sense of something that will ultimately happen which could encode REMOTE FUTURE (Ziervogel and Mabuza, 1976: 99). However there is another interpretation of 'ultimate' which has relevance to the ALTERATIVE. I have posited that a change of activity rather than continuation tends to be fore-grounded and morphologically encoded, and that consequently the ALTERATIVE is preferred to the PERSISTIVE by default in siSwati temporal cognition (see chapter seven). The sense that an event is ultimately going to occur is implicitly ALTERATIVE Exclusive sub-sense so I propose that there is an ALTERATIVE dimension to the REMOTE FUTURE marker morphologically encoded by the deictic motion verb *ku-y-a* ('to go'). ALTERATIVE Exclusivity can be indicated by *ekugcineni* ('at last') and suggests an 'ultimate' occurrence (certainty) and *sóló* encodes Persistivity as in example (5.127). These two aspects do not readily co-occur so the attenuated ALTERATIVE aspect of the REMOTE FUTURE tense was preferable to the more explicit strategy with the temporal locative (*ekugcineni*). I further suggest that the nature and role of the REMOTE FUTURE is better understood when interpreted in terms of its ALTERATIVE character (the ultimate occurrence of an event, the inevitability of a change in the prevailing situation) as well as its canonical relative temporal proximity function. Analysed in terms of such a role, where the selection of a REMOTE or IMMEDIATE FUTURE marker does not appear to be justified, many usage situations may be satisfactorily explained.

5.9.1 The negative FUTURE marker *ngeke* and the ALTERATIVE

In this section I analyse and assess the role of *ngeke* ('never') as a FUTURE marker and its relationship with the negative ALTERATIVE ('no longer').

Ngeke in (5.128) is followed by the lexical verb in the SUBJUNCTIVE mood and the dictionary describes *ngeke* as a ‘deficient verb’ (Rycroft, 1981: 71) but it is better described as an auxiliary (Ziervogel and Mabuza, 1976: 120) and it is this term which is used:

- (5.128) *Á-ngékè* *á-búy-él-è*
 SC1-AUX.*never* SC1-*return*-APP-FV
 ‘He will never return’ (Ziervogel and Mabuza, 1976: 120)

According to Z&M *ngeke* is formed from the negative marker *-nga-* and *-ke* which indicates that an action occurs intermittently (Ziervogel and Mabuza, 1976: 156). It acts as a negative FUTURE marker although semantically it does not encode the strong negation suggested by the sense of ‘never’.

PERFECTIVE and IMPERFECTIVE relative tenses are described in chapter six and have been problematic in my research as siSwati speakers are more concerned about temporal proximity of Event time rather than Reference time and so analysis of the relative tenses has been difficult but (5.129) is a close semantic equivalent to the negative FUTURE PERFECT having adopted an alternative cognitive perspective through the use of *be-* and *ngeke*.

- (5.129) *Be-ngì-ngêke* *ngì-náts-e*
 PAST-SC1sg-DEF.VB.*never* SC1sg-*drink*-FV
 ‘I was never drinking’

The tense/aspect marker *be-* encodes IMPERFECTIVE aspect and PAST tense and the auxiliary or deficient verb *ngeke* encodes ‘never’ but there is no PERFECT marker in the IMPERFECTIVE response. The translation for *ngeke* is given as ‘never’ but consultants have confirmed that in siSwati it means ‘not now but later’ and the siSwati expression which is PAST absolute reveals an interesting feature regarding relative tenses in siSwati temporal cognition.

The FUTURE PERFECT in English is temporally ambiguous: ‘I will not have drunk tomorrow (i) or yesterday (ii)’ are both acceptable. In terms of Reichenbach’s SER analysis (1947):

(5.130) ‘I will not have drunk’	S	>	E	>	R	(i)
and:	E	>	R	>	S	(ii)

The siSwati expression (5.129) is not relative or ambiguous and does not encode a future event:

(5.131) ‘I was never drinking’	E	>	S/R
--------------------------------	---	---	-----

My consultant has expressed sense (5.130) (ii) and has done so without a relative tense or FUTURE marker. I would posit that without the PAST tense marker *be-* sense (5.130) (i) would be expressed and also that the SUBJUNCTIVE which encodes counter factuality in conjunction with *ngeke* is a semantic factor in the response.

In (5.132) *ngeke* can indicate the negative ALTERNATIVE (‘no longer’) and the Exclusivity sub-sense (‘not yet’) as a second subordinate VP with the lexical verb *ku-phindz-a* (‘to repeat’) appears and ‘never again’ has a sense of not doing something that has previously been done which is semantically close to the negative ALTERNATIVE.

(5.132)	<i>A-ngéke</i>	<i>ngi-phíndz-e</i>	<i>ngi-náts-e</i>
	NEG-AUX. <i>never</i>	SC1sg- <i>repeat</i> -SUBJ.FV	SC1sg- <i>drink</i> -SUBJ.FV
	‘I will never drink again’		

As observed above *ngeke* encodes ‘not now but later’ so the sense is that change will eventually occur and it appears that *ngeke* is an accurate indicator of the negative ALTERNATIVE and the Exclusivity sub-sense.

My informant used example (5.132) throughout the rest of the interview and a feature which emerged was that on one occasion the negative prefix of *a-ngeke* was dropped entirely and on another it was replaced by *ngi-*. In section 2.3.2 it was shown that the negative of the POTENTIAL mood (5.133) is formed with the FV *-e* and the deficient verb *-ngeke* and that the subject concord of the auxiliary verb is optional:

- (5.133) *(a)-ngeke* *a-nats-e*
 (SC1)-DEF.VB. *never* SC1-*drink*-FV
 ‘S/he cannot drink’

In this form *a-* is a subject concord (noun class 1) and not a negative marker, so the morphological analysis of (5.132), which is in the first person singular not third person singular, is problematic. It seems the prefix can be *a-* or *ngi-* or \emptyset but it has not been established what the semantic effect and the phonological influences are on their selection although a possible explanation for this behaviour may involve the grammaticalization of *ngeke* from a hypothetical obsolete verb *-(i)ka*. The latent *i-* has previously been described in chapter two in respect of the motion verb *-(i)ta* (‘come’) which has grammaticalized as the IMMEDIATE FUTURE marker. The latent *-i* would explain how negative *nga-* and the PERFECT form of *-(i)ka* coalesce to *ngeke* as the full negative PERFECT form would have been $^{\circ}a-ngi-nge-k-e$ but over time the negative prefix (*a-*) and/or the subject concord were regarded as optional.

This analysis would suggest that *-ke-* is the grammaticalized FUTURE PERFECT form of such a hypothetical verb and can encode an occasional action (Ziervogel and Mabuza, 1976: 156) as illustrated in (5.134), which is (5.24) repeated from above. Whilst not encoding ALTERATIVE aspect it does suggest Alterativity i.e. an activity that is not continuing but intermittent (sometimes done and sometimes not) and also supports the claim that as a FUTURE marker *ngeke* does not encode ‘never’ but ‘not now but later’:

- (5.134) *Ngí-ke* *ngi-y-e* *ku-yo-bon-a* *bo-malume*
 SC1sg-DEF.VB SC1sg-go-FV 15-REM.FUT-*see*-FV 2a-*uncles*
 ‘I occasionally go to see my uncles’

5.10 Summary

This chapter looked at the second of the three aspectual markers with which this thesis is concerned, the ALTERATIVE marker *-se-* and I described its morpho-semantic, phonological and syntactic behaviour. Included in the analysis were instances of the PERSISTIVE aspect marker *-sa-* appearing as *-se-*. The analysis considered the complementary distribution of *-se-* and the PERSISTIVE aspect marker *-sa-* and observed that when functioning as an auxiliary *-se-* cannot be in complementary distribution. As ALTERATIVE is a new aspectual

term I compared it with what is labelled EXCLUSIVE in the standard grammars. The phonological change undergone in certain environments such as verbal and non-verbal constructions was analysed. My re-analysis of the SiSwati TAM system and in particular how it accommodates the ALTERATIVE Exclusivity sub-sense was reviewed. A section looked at *bese* and a group of constructions with *-se-* which display concordial agreement and perform a similar role to *bese*. Two environments (*se-nga-ka* and statives) which displayed reduplication of *-se-* were described followed by a section exploring the semantic complexity of the dual-time period aspects and a section on REMOTE FUTURE markers and their connection with the ALTERATIVE which included a sub-section that looked at the negative FUTURE marker *ngeke*.

6. Encoding the INCEPTIVE and CONDITIONAL aspects in siSwati

6.1 Introduction

SiSwati has a set of tenses commonly called in the standard grammars the ‘continuous’ compound tenses with *be-* which are the subject of the present chapter. This label which categorises them in terms of their aspectuality as well as their morphology is inappropriate as I explain below and in my analysis I describe them simply as ‘compound’ tenses with *be-* which focuses on their morphology and their common feature, the morpheme *be-* which has grammaticalized from the PERFECT form of the copula verb *ku-b-a* (‘to be’).

This analysis asserts that the compound tenses formed with *be-* are not ‘continuous’ as suggested in the standard grammars (Ziervogel and Mabuza, 1976, Taljaard et al., 1991, Rycroft, 1981, Doke, 1947) but compound tenses which encode IMPERFECTIVE and/or INCEPTIVE/CONDITIONAL aspect and PAST tense. In a siSwati language grammar the *be-* tenses are described not as continuous but immediate (Dlamini, 1979). If the lexical verb of a compound tense with *be-* has a PERFECT marker then such a verb form will encode the PERFECTIVE. For many authors CONTINUOUS and PROGRESSIVE are synonymous (Rose et al., 2002) and Nurse observes that the IMPERFECTIVE describes a situation that is a longer, unbounded period than the PROGRESSIVE which describes a situation of shorter duration around a specific point of reference (Nurse, 2008: 144) and states that cognitively the IMPERFECTIVE embraces the HABITUAL but excludes the PROGRESSIVE. In my analysis the CONTINUOUS and PROGRESSIVE are synonymous but the PROGRESSIVE has not grammaticalized in siSwati as discussed in chapter four although Progressivity is indicated contextually and so to describe the compound tenses with *be-* as either PROGRESSIVE or CONTINUOUS does not reflect their aspectuality.

Be- performs the roles of auxiliary, tense and aspect marker in which it encodes PAST tense, either immediate or remote depending on tone, and IMPERFECTIVE aspect including the INCEPTIVE and CONDITIONAL. In Nurse’s matrix for isiZulu there are five aspectual columns which are PERFECTIVE, IMPERFECTIVE, PERSISTIVE, INCEPTIVE and ANTERIOR (see section 2.3.1) and the isiZulu compound tenses with *be-* are listed in the IMPERFECTIVE column (Nurse, 2008: Appendix isiZulu S42). The IMPERFECTIVE contrasts

with the PERFECTIVE and represents a situation that lasts over a period of time, it is unbounded and the beginning and end are either unmentioned or unknown (Nurse, 2008: 136). The PERFECTIVE aspect describes a complete event that typically took place in the past but can take place in the future and even the present. Semantically it describes a bounded whole and has no regard for the internal temporal structure or constituent phases (Nurse, 2008: 135). Nurse observes that in Bantu languages the PERFECTIVE is often unmarked and IMPERFECTIVE is marked (Nurse, 2008: 136).

This chapter is organised as follows: 6.2 is a review of the compound tenses with the tense/aspect marker *be-* which looks at temporality and aspectuality. Section 6.3 describes the taxonomy of the compound tenses in siSwati which display IMPERFECTIVE and PERFECTIVE aspects and absolute and relative tenses. Section 6.4 investigates the INCEPTIVE and CONDITIONAL aspects and 6.5 looks at analytic and contracted forms. The final section 6.6 is a morphological analysis of the auxiliary *ngabe*.

6.2 The compound tenses with tense/aspect marker *be-* and auxiliary *-be*

This section is a morphological analysis of the compound IMPERFECTIVE and PERFECTIVE tenses. I analyse the various roles of *be-* as tense and aspect marker and auxiliary and the slots in the siSwati verbal template which each occupy and look at relative and absolute tenses and contrast their salience in siSwati temporal cognition with temporal proximity as encoded by remote and immediate tense markers. An absolute tense has the present as its point of Reference and deictic centre and contrasts with a relative tense which has as its point of Reference some time point other than the present. Both absolute and relative tenses bifurcate into those which are PERFECTIVE or IMPERFECTIVE and both are morphologically encoded in siSwati.

Be- is a formative and a bound morpheme which acts as a tense/aspect marker and encodes PAST tense and IMPERFECTIVE aspect and *-be* acts as an auxiliary and appears in the compound tenses as such (Ziervogel and Mabuza, 1976: 100). As the next three examples demonstrate this marker can appear in compounds as a prefixal aspect marker, as an auxiliary in final position or both:

- (6.1) *Ngì-tàwu-b-è* *ngì-náts-à*
 SC1sg-IMM.FUT-*be*-FV SC1sg-*drink*-FV
 'I am about to be drinking'

In (6.1) *-be* appears word-finally in the auxiliary of this compound verb and Reference and Speech time are contemporaneous at present and anterior to Event time. INCEPTIVE aspect is encoded by the IMMEDIATE FUTURE marker *-tawu-* and the auxiliary *-be* and together with the absence of the PAST tense marker *be-* this arrangement encodes FUTURE IN THE PRESENT. The auxiliary verb is subordinate to the lexical verb as the expression is about drinking not being and the lexical verb could stand alone whereas the auxiliary cannot. In this expression the auxiliary is marked for IMMEDIATE FUTURE tense and the lexical verb which is in PARTICIPIAL mood is unmarked for tense so encodes PRESENT by default. The PARTICIPIAL PRESENT contrasts with the INDICATIVE PRESENT in tone and the absence of a disjoint form, the tone markings are Z&M's.

- (6.2) *Bé-ngí-nàts-ìlè*
 REM.PAST-SC1sg-*drink*-DIS.PERF
 'I was drunk'
 'I had drunk'

In (6.2) *be-* is word-initial and acts as a grammaticalized PAST tense marker which with the PERFECT suffix encodes PLUPERFECT but also has a stative sense. This is a relative PERFECTIVE tense with Reference time posterior to Event time but anterior to Speech time. Identification and analysis of the PLUPERFECT and FUTURE PERFECT have been difficult as my informants were more concerned with cognitive temporal proximity rather than shifting Reference times in relative tenses.

- (6.3) *Bé-ngí-tá-b-è* *ngì-náts-à*
 REM.PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-*drink*-FV
 'I was about to be drinking'

In (6.3) *-be* is acting as auxiliary and *be-* as tense/aspect marker and in conjunction with the IMMEDIATE FUTURE marker *-tá-* and the PARTICIPAL mood lexical verb they encode a relative IMPERFECTIVE tense FUTURE IN THE PAST. INCEPTIVE aspect is encoded as seen in example (6.1) and Event time is anterior to Speech time and Reference time is anterior to Event time.

A comparison of examples (6.1) and (6.3) which encode INCEPTIVE aspect reveals that both have an IMMEDIATE FUTURE marker (*-tawu-* or the short-form *-ta-*) and word-final auxiliary *-be* as common features. In (6.1) the absence of the PAST tense marker in the auxiliary and the IMMEDIATE FUTURE marker in conjunction with auxiliary *be-* combine with the lexical verb which is in PARTICIPIAL mood and unmarked for tense to encode FUTURE IN THE PRESENT tense. In compound tenses which comprise inflected auxiliaries and inflected lexical verbs the first inflects for tense, aspect and other categories, while the second inflects for aspect and less often for tense (Nurse, 2008: 29).

The auxiliary *-be* and the tense-aspect marker *be-* (prefix) are in different stages of grammaticalization and this chapter will investigate their different roles. The presence of multiple tenses in compound verbal forms sometimes makes it difficult to identify individual morpho-semantic roles, for example, in (6.3) there is an IMMEDIATE FUTURE marker (*-tá-*), a PAST tense marker (*bé-*), an auxiliary (*-bè*) and the unmarked PRESENT tense and PARTICIPIAL mood of the lexical verb. Other than the tense/aspect marker *bé-* or auxiliary *-bè* it is difficult to see where else INCEPTIVE aspect is encoded but I would posit that the FUTURE marker in the auxiliary verb together with the auxiliary *-be*, encode INCEPTIVE and generally the presence of the PAST tense marker *be-* encodes CONDITIONAL aspect. This position is close to Nurse's view that a PAST and FUTURE marker appearing together encode the CONDITIONAL (Nurse, 2008: Appendix isiZulu S42) although the analysis proposed here recognises that either or both aspects (CONDITIONAL and INCEPTIVE) may be encoded.

In my analysis the markers *be-* and *-be* acting as tense marker and auxiliary encode INCEPTIVE and/or CONDITIONAL ⁶¹ although as discussed in the previous paragraph they do so jointly with the FUTURE marker in the auxiliary verb. The INCEPTIVE describes the start of a situation whereas the ALTERATIVE describes a change of situation (either activity or polarity) so they are different semantically. The ALTERATIVE is a dual-time period aspect linking two separate time periods but the Progressive and the INCEPTIVE/CONDITIONAL are all single-time period senses/aspects and the former relates to a period during which an

⁶¹ Nurse states that in English the INCEPTIVE is usually expressed by 'about to' (Nurse, 2008: 161) and that in isiZulu it is encoded by *-se-* but in siSwati *-se-* does not encode this meaning which I attribute to the tense/aspect marker and auxiliary *be-*.

activity is continuous while the latter refer to either a situation starting up or entering into a state (INCEPTIVE) or an event that was prevented from occurring (CONDITIONAL).

Nurse observes that in Bantu languages there are three possibilities for the IMPERFECTIVE to be encoded, it can be present as a single IMPERFECTIVE aspect, or it can appear together with a selection from the IMPERFECTIVE aspects (PROGRESSIVE, PERSISTIVE, INCEPTIVE and HABITUAL) or finally, a selection of those IMPERFECTIVE aspects can be encoded without a discrete IMPERFECTIVE (Nurse, 2008: 136). The structure in siSwati is that *be-* encodes IMPERFECTIVE (including INCEPTIVE and CONDITIONAL), *-sa-* encodes PERSISTIVE and *-se-* encodes ALTERNATIVE. Neither the HABITUAL nor the PROGRESSIVE are morphologically encoded.

-Be appears in the auxiliaries of compound tenses which encode PAST, PRESENT and FUTURE. Dlamini describes the PAST tense with *be-* as a recent PAST tense, and does not refer to it as ‘continuous’ (Dlamini, 1979) which is supported by my fieldwork data. In such compound tenses the lexical verbs are in PARTICIPIAL mood and the combination of the auxiliary verb with *-be* and the lexical verb result in both PERFECTIVE and IMPERFECTIVE compounds and an extensive range of tenses. If a PERFECT marker in the lexical verb is present then a PERFECTIVE aspect is encoded, if the PERFECT marker is absent then IMPERFECTIVE aspect is encoded. In my analysis, *be-* can be a tense/aspect marker encoding PAST tense (either remote or immediate depending on tone) and CONDITIONAL and/or INCEPTIVE aspect or it can be an auxiliary. As tense/aspect marker it does not encode CONTINUOUS or PROGRESSIVE aspect which I regard as synonymous as described in 6.1.

6.3 *Be-* as IMPERFECTIVE aspect marker in the compound tenses

In this section I describe the morphology and semantics of the IMPERFECTIVE aspect marker and contrast it with the PERFECTIVE as it appears in the compound tenses. The IMPERFECTIVE FUTURE IN THE PAST, the counter-expectational negative ALTERNATIVE Exclusivity sub-sense and negative PERFECT are shown to be semantically similar although with different cognitive temporal perspectives. I analyse the PAST and FUTURE markers

appearing in the same compound and consider the criteria for selecting remote and immediate forms.

Example (6.4) does not comprise an auxiliary and lexical verb but despite being a unitary form it is still classified under the analysis proposed here as a compound tense because of the presence of the PAST tense marker *be-*. The markers *be-* and *-be* are the same underlying morphemes but can be aspect marker or auxiliary and in this case *be-* has dropped the subject concord *ngi-* which was historically the prefix of the analytic form (*ngi-be ngi-nats-a*). In (6.4) *be-* encodes IMPERFECTIVE but not INCEPTIVE aspect and being L tone IMMEDIATE PAST.

- (6.4) *Be-ngi-náts-a*
 PAST-SC1sg-*drink*-FV
 ‘I was drinking’

In section 2.3.1.2 it was demonstrated that *be-* is a PAST tense and IMPERFECTIVE aspect marker and that the verb is in PARTICIPIAL mood and differs from the INDICATIVE in the class 1 subject concord which has two forms repeated here as (6.5) and (6.6) (Ziervogel and Mabuza, 1976: 101):

- (6.5) *á-bé-náts-à*
 SC1-PAST-*drink*-FV
 ‘(while) he was drinking’
- (6.6) *bé-ká-náts-a*
 PAST-SC1-*drink*-FV
 ‘(while) he was drinking’

Be- does not encode PERFECT tense/aspect despite itself being historically the PERFECT form of the copula verb *ku-b-a*.

- (6.7) *Be-ngi-sá-tó-náts-a*⁶²
 PAST-SC1sg-ALT-IMM.FUT-*drink*-FV
 ‘I was now about to be drinking’

⁶² In (6.7) *-sa-* is analysed as ALTERATIVE and not PERSISTIVE see section 5.4.

There is no PERFECT marker in (6.7) so it is IMPERFECTIVE and a relative tense FUTURE IN THE PAST and can be regarded as a mirror tense of the PLUPERFECT (PAST IN THE PAST). The speaker's temporal perspective is from the past looking forward to a posterior event, but at Reference time which is anterior to Speech time it was still something that she was 'about to do'. The sense entails that the event was expected to take place but the outcome is not definite as the INCEPTIVE aspect has the sense of encoding an imminent, anticipated event. The tense/aspect marker *be-* encodes PAST tense, and in conjunction with the IMMEDIATE FUTURE marker *-to-*, INCEPTIVE aspect.

The semantic effect of the ALTERATIVE aspect marker is to encode the polarity or activity switch and the sense in (6.7) is that the speaker was not about to drink previously, although circumstances have changed and now she is. Significantly, in this form both INCEPTIVE and ALTERATIVE are encoded, by *be-* in conjunction with *-to-* and *-se-* (appearing as *-sa-*) respectively, and as both are discrete aspects Nurse's classification of *-se-* encoding INCEPTIVE is not supported (Nurse, 2008: Appendix isiZulu S42).

My informant explained that (6.7) could be used when 'you come to clear away the tea things before I am finished' so there is a politeness strategy in evidence, which is less assertive than 'I am still going to drink'. The tense marker *be-* is typically used in polite forms of address/requests:

- (6.8) *Be-ngi-cel-a....*
 PAST-SC1sg-ask-FV
 'Please.....'
 Lit. 'I asked/was asking'

Be- is encoding PAST tense and by its use the speaker is pursuing a politeness strategy, which dissociates the speaker and hearer temporally in order to attenuate the force of the utterance which is also a feature of English (Quirk et al., 1972: 86).

In section 5.6 I described the construction *be-se* where *be-* as PAST tense marker combined with the ALTERATIVE auxiliary to encode the conjunctive sense of 'then'. However, (6.9) illustrates the difficulties that can arise with *be-se* and the morpho-semantic analysis of these two morphemes.

- (6.9) *Be-se-ngi-tó-náts-a* *li-tíya ná-ke-fí k-a*⁶³
 PAST-ALT-SC1sg-IMM.FUT-*drink*-FV 5-*tea* CONJ.*when*-SC1-*come*-FV
 ‘I was now about to drink tea when he comes’

The interpretation of (6.9) depends on whether *be-se* is a separate construction or whether it is an integral part of the verb form as shown. If it is separate then *ngi-to-nats-a* is a simple FUTURE tense and the tense of the two constructions (*be-se* and *ngi-to-nats-a*) is not past as confirmed by my consultant. However, the morphemes of such a unitary form (i.e. *be-se* is not a separate construction) shown as (6.9) cannot fit individually into the linear verbal template because the aspect marker *-se-* appears between the initial *be-* and the subject concord, but if *be-se* occupies the initial slot both the morphological and semantic difficulties are resolved. The form is therefore analysed as a relative tense FUTURE IN THE PAST encoding ALTERATIVE and INCEPTIVE aspect with the sense as shown in (6.9). In section 5.5.4 the *se-nga-ka* construction consisting of three morphemes was allocated to slot four so such a morphological analysis with multiple morphemes allocated to a single slot is not without precedent and so I posit (6.9) is plausible. Reference time is anterior to Event time and the third party’s arrival is anterior to Speech time so tea ‘was about to be drunk when he comes’ as the second verb in the narrative is PARTICIPIAL mood and not marked for tense.

I now discuss the issue of the semantic similarity between the relative compound tense FUTURE IN THE PAST (6.10) in which *be-* and the FUTURE marker *-tawu-* encode INCEPTIVE aspect and the negative ALTERATIVE Exclusivity sub-sense. I also consider the functionality of *be-* when acting as aspect marker or auxiliary and its ability to encode REMOTE FUTURE tense.

- (6.10) *Bè-ngi-tawu-nats-a*
 PAST-SC1sg-IMM.FUT-*drink*-FV
 ‘I was about to be drinking’

My data suggest that it is not always the case in siSwati that the combination of PAST and FUTURE markers in the compound tenses encode CONDITIONAL aspect although according to Nurse this is the case in isiZulu (Nurse, 2008: Appendix isiZulu S42). Examples (6.7)

⁶³ The consonant *k-* is present to avoid the hiatus between the two vowels. In the PARTICIPIAL mood class 1 is *a-* (not *u-*) and phonological change results in *e-*.

and (6.10) both have the tense marker *be-* in slot one and a FUTURE marker in four but these markers encode IMPERFECTIVE and INCEPTIVE not CONDITIONAL.

Example (6.10) is positive FUTURE IN THE PAST but the negative ALTERATIVE Exclusivity sub-sense is semantically similar from a different cognitive temporal perspective. Looking back into the past or looking forward from the past can achieve similar semantic effects as can the choice of polarity. In siSwati the FUTURE IN THE PAST is another strategy for encoding negative ALTERATIVE Exclusivity which has futurity implicit in the meaning.

In absolute tenses extending anterior temporal proximity can be achieved by H tone on the PAST tense marker *be-*, but this is not acceptable with relative tenses. The PAST tense marker in (6.10) is L tone so it has the sense of being about to drink yesterday and my informant advised that with H tone it would be ungrammatical although the FUTURE IN THE PAST with PAST tense concord (6.11) which is a contracted form and the analytic form (6.12) are both acceptable:

- (6.11) *Nga-ngi-tawu-nats-a*
 REM.PAST.SC1sg-SC1sg-IMM.FUT-*drink*-FV
 ‘I was going to be drinking’
- (6.12) *Nga-b-e* *ngi-tawu-nats-a*
 REM.PAST.SC1sg-*be*-FV SC1sg-IMM.FUT-*drink*-FV
 ‘I was going to be drinking’

The analytic form suggests an explanation as to why *be-* with H tone cannot encode REMOTE PAST in the contracted form (6.10) because it is the tense marker *be-* which takes H tone not the auxiliary. In (6.10) the subject concord is dropped in the contracted form leaving the auxiliary which would not normally take H tone, and this contrasts with (6.11) where the PAST tense concord is retained and the auxiliary omitted. It could be argued that in (6.10) prefixal *be-* should be glossed as *be-FV* if it is an auxiliary but I feel this would not reflect the grammaticalization process which is in evidence. When *ngi-be* > *be-* the auxiliary *be-* is re-analysed as an aspect/tense marker which does not lose its inability to take a REMOTE PAST H tone although possibly over time this may occur.

An alternative approach, as posited above, maintains that it is the combination of PAST and FUTURE markers (in this case the PAST tense concord *nga-*) which encode either INCEPTIVE or CONDITIONAL aspect. It is not unusual that an aspect or tense is not encoded by a particular marker (PRESENT tense is marked by the absence of TAM marking as discussed in chapter three), and semantic compositionality, where a combination of markers encode an aspect can provide an explanation. The sense of being about to do something (INCEPTIVE) would naturally involve a FUTURE marker, and if the activity was still to occur, a PAST marker would be a natural semantic partner. Encoding a sense of being about to do something but being prevented (CONDITIONAL) is more difficult to explain but the presence of prefixal *be-*, auxiliary *-be* and a FUTURE marker is a plausible arrangement.

The discussion above suggests that the FUTURE IN THE PAST relative tense (‘about to do’) is semantically similar to the negative ALTERATIVE Exclusivity sub-sense (‘yet to do’) and another strategy for encoding that sub-sense is illustrated by the following example:

⁶⁴ Rycroft describes *na-* as a conjunction 'if, when' and as a conjunctive adverbial prefix 'and, also, even, with' (Rycroft, 1981: 63) so in order to separate the two roles I classify as conjunction or adverbial prefix.

⁶⁵ I gloss *itoló* as an adverb to be consistent with *namuhla* ('today') and *kusasa* ('tomorrow') which are clearly adverbs as indicated by their derivations from *na-* + *umu-hla* ('and the day') and *ku-sa-s-a* ('it is now dawn'). *I-tolo*, *ema-tolo* is noun class 9 and 6 but Rycroft describes it as a noun or adverb (Rycroft, 1981: 101). In (6.14) it follows the adverbial prefix *na-* (as does *umu-hla* in *namuhla*) so it seems appropriate to gloss as an adverb. Unlike *namuhla* the adverbial and noun prefixes do not coalesce to *netolo*.

Negative ALTERNATIVE Exclusivity is usually encoded by *se-nga-ka* which comprises of three morphemes ALTERNATIVE, NEGATIVE and PERFECT (cf. section 5.5.4). However the NEGATIVE PERFECT (6.14) can encode negative ALTERNATIVE Exclusivity (i.e. without the ALTERNATIVE prefix and with the word-initial negative morpheme *a-*) (Ziervogel and Mabuza, 1976: 188). The two temporal adverbs *nyalo* ('now') and *itolo* ('yesterday') encode temporality and locate the event in time but do not indicate Exclusivity.

So two different strategies can be pursued to achieve the meaning indicated by the negative ALTERNATIVE Exclusivity sub-sense, firstly an altered cognitive temporal perspective can be adopted by employing the IMPERFECTIVE FUTURE IN THE PAST as in example (6.10) and there is a second strategy in (6.14) which employs the negative PERFECT supported by temporal adverbs.

The sense of 'about to' do something (commencement of an activity or event) is INCEPTIVE aspect which explains why FUTURE IN THE PAST tense/aspect can indicate negative ALTERNATIVE Exclusivity as the sense of 'not yet' doing something implies the same situation from a reversed temporal cognitive perspective. The ALTERNATIVE and INCEPTIVE aspects are distinct as described above, but negative ALTERNATIVE Exclusivity and INCEPTIVE FUTURE IN THE PAST are semantically close. SiSwati temporality is fluid and contextualised, with multiple strategies, variable perspectives and the paraphrastic use of adverbial constructions.

There are two time periods inherent in the relative IMPERFECTIVE tenses. Firstly how far back is the Reference time in the past or ahead in the future? This requires that a choice be made between the PAST tense marker *be-* and the PAST tense concord *nga-* and the FUTURE tense markers *-tawu-* and *-yawu-*. Secondly between Reference time and posterior Event time a choice must be made between immediate and remote markers. Regarding the FUTURE marker in the relative past the nature of the expression (referring as it does to an event that is about to happen) the speaker cannot know (at Reference time not Speech time) whether a short or long period of time will elapse. The Reference time is located in the remote past by the PAST tense concord (*nga-*) but the time elapse between Reference time and the occurrence of the event is not known at Reference time. It is only known later at Speech time (with the benefit of hind sight). Of course at Speech time with a relative tense

as with an absolute one, the past is known, the not knowing at Reference time has passed and as former Secretary of Defense Rumsfeld (White House press conference on Iraq war, 12 February 2002) would say it is now a 'known unknown'. It could be argued that the appropriate combination of immediate and remote, PAST and FUTURE markers could therefore be used and it is to explore these issues that further research is needed. Empirical research could be undertaken to investigate expressions such as: 'Last week/month/year I was going to drink after not drinking for a week/month/year'

The above discussion refers to PAST relative tenses. The FUTURE relative tenses are Rumsfeld's 'unknown unknowns'. In the expression 'I will be about to drink' (FUTURE IN THE FUTURE) it is not known at Speech time whether to use a remote or immediate FUTURE marker to encode the time lapse between the posterior Reference time and Event time or the Speech to Reference time. As suggested above research could investigate expressions such as: 'Next week/month/year I will be about to drink after not drinking for a week/month/year'.

In this section I have introduced the FUTURE IN THE PAST which is classified as a relative IMPERFECTIVE tense that encodes PAST tense and INCEPTIVE aspect and is described as a tense/aspect hybrid. I have contrasted it with the negative ALTERATIVE Exclusivity sub-sense and negative PERFECT forms both of which encode a counter-expectational sense of 'not yet' which is semantically similar to the sense of 'about to' encoded by the IMPERFECTIVE FUTURE IN THE PAST. In this comparison I have discussed and analysed the complex semantics and morphology of these compound tenses which consist of various combinations of tense and aspect markers.

6.4 INCEPTIVE and CONDITIONAL aspectuality

In this section I look at the encoding of INCEPTIVE and CONDITIONAL aspects in both dynamic and stative verbs. Futurity and certainty are encoded in siSwati in the compound tenses by various combinations of tense and aspect markers which this section seeks to analyse and explain. The tense/aspect marker and auxiliary *be-* plays a major role in this process and is primarily instrumental in encoding positive or negative outcome, temporal

proximity and certainty and this analysis of the compound tenses identifies the functions and processes involved.

In the following three examples *be-* appears as prefix in (6.15), as verbal base in (6.16) and as both in (6.17) with various semantic effects:

- (6.15) *Be-ngi-tawu-nats-a*
 PAST-SC1sg-IMM.FUT-*drink*-FV
 'I was about to be drinking' FUTURE IN THE PAST
- (6.16) *Ngì-ta-b-e* *ngi-tawu-nats-a*
 SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*drink*-FV
 'I will be about to be drinking' FUTURE IN THE FUTURE
- (6.17) *Be-ngi-ta-b-e* *ngi-tawu-nats-a*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*drink*-FV
 'I would have been drinking' FUTURE IN THE PAST

The prefix *be-* is a PAST tense and aspect marker and *-be* is a PAST auxiliary to the lexical verb *ku-nats-a* ('to drink'). The diachronic evolution of these separate functions is beyond the scope of this thesis but many verbal forms in which this morpheme appears twice have analytic and contracted variants and the duplication can be explained by positing that they are performing different roles. Example (6.15) displays prefix *be-* but is a contracted form having dropped the subject concord and encodes INCEPTIVE. Example (6.16) displays the absence of the prefix *be-* and encodes imminent temporal proximity, focus and certainty so the event is just about to occur (INCEPTIVE). Example (6.17) with word-initial *be-* has the semantic effect of encoding CONDITIONAL aspect. This is plausible as the appearance of two past morphemes (tense marker and auxiliary) would have the effect of emphasizing remoteness and therefore uncertainty.

According to Nurse where the isiZulu compound tense has a PAST auxiliary and a lexical FUTURE then CONDITIONAL aspect is encoded (Nurse, 2008: Appendix isiZulu S42) but my data as presented in this analysis shows this is an over-simplification in siSwati. In the above examples all are compound tenses and all have PAST and FUTURE tense markers but only (6.17) encodes CONDITIONAL aspect. The events in the first two examples (FUTURE IN THE PAST) and (FUTURE IN THE FUTURE) respectively encode INCEPTIVE and although the

positive outcome lies in the future relative to Reference time, which is anterior or posterior to Speech time, it is regarded as certain, but in (6.17) CONDITIONAL aspect encodes the meaning that something or someone prevented the speaker from drinking. The CONDITIONAL aspect (an event that was prevented) contrasts with the INCEPTIVE aspect (an imminent event that is expected to happen).

As Nurse claims with his isiZulu data the combination of PAST and FUTURE markers encode CONDITIONAL aspect. Rose et al. describe the CONDITIONAL not as an aspect but as modality which implies a condition. They note Doke observes that Bantu languages often make no distinction between the ideas of ‘if’ (condition) and ‘when’ (time), even as they make no distinction between the ideas of ‘could’ (potentiality) and ‘would’ (time) (Rose et al., 2002, Doke, 1935). Such a view is not supported by my analysis and my fieldwork data shows that such distinctions are made. The CONDITIONAL (aspect or modality) here has the sense of ‘if this person had not been here, then I would have drunk’. The nature of the CONDITIONAL is discussed further in the summary which follows the tabular analysis in 6.5 on analytic and contracted compound forms.

The situation in siSwati is complex and the following examples illustrate how conditionality, ambiguity and certainty are all in play, and meaning and entailment are influenced by the presence of temporal adverbs and the combination of tense/aspect markers in both auxiliary and lexical verb. The following examples seek to explain the effect of inclusion or exclusion of prefixal tense/aspect marker *be-*:

The lexical FUTURE verb with an auxiliary verb with a prefix *be-* encodes CONDITIONAL aspect and FUTURE IN THE PAST and the action that would have happened is relegated to the past as in (6.18).

- (6.18) *Be-ngi-ta-b-e* *ngi-tawu-gijim-a* *itolo*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*run*-FV ADV.yesterday
 ‘I was going to run yesterday’
 ‘I would have run yesterday’

This CONDITIONAL expression (6.18) is acceptable as it refers to the past. The tense of an expression is usually taken from the auxiliary not the lexical verb and so the prefix PAST

tense marker encodes PAST tense. The entailment is that running did not take place because something prevented it. The key to its acceptability is PAST tense as illustrated by the following example:

- (6.19) *Be-ngi-ta-b-e* *ngi-tawu-gijim-a* *nge-n-simbi*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*run*-FV ADV.PFX-9-*bell*
- ye-ku-cal-a* *e-m-ini*
 PC9-15-*begin*-FV LOC-*midday*-LOC

‘I was going to run at one o’clock’

In (6.19) the speaker’s intention was to run at one o’clock but something prevented it. This would be said on the same day but referencing an earlier time. To merely refer to the current day is not acceptable as in (6.20):

- (6.20) **Be-ngi-ta-b-e* *ngi-tawu-gijim-a* *namuhla*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*run*-FV ADV.*today*
- ‘I was going to run today’

In siSwati the CONDITIONAL must explicitly specify an anterior time to the Speech time as in (6.18), (6.19) and (6.21).

- (6.21) *Be-ngi-ta-b-e* *ngi-tawu-gijim-a* *ekuseni*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*run*-FV ADV.*morning*
- namuhla*
 ADV.*today*

‘I was going to run in the morning today’

It is not the temporal adverb *namuhla* (in (6.20) which is ungrammatical but the specific time which must be anterior to Speech time so example (6.21) is acceptable as it refers to the morning of the current day, i.e. the expression entails that Speech time is at midday or in the afternoon and that the run was prevented from taking place. The expression (6.22) with a future temporal adverb referring to a time posterior to Speech time is ungrammatical:

- (6.22) **Be-ngi-ta-b-e* *ngi-tawu-gijim-a* *kusasa*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*run*-FV ADV.*tomorrow*
 ‘I was going to run tomorrow’

The following expressions illustrate the semantic effect of omitting the PAST tense marker *be-* (cf. (6.18) above):

- (6.23) **Ngi-ta-b-e* *ngi-tawu-gijim-a* *itolo*
 SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*run*-FV ADV.*yesterday*
 *‘I will be running yesterday’

Example (6.23) without the prefix is ungrammatical if a time anterior to Speech time is included. Even contemporary time reference is unacceptable as in (6.24).

- (6.24) **Ngi-ta-b-e* *ngi-tawu-gijim-a* *namuhla*
 SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*run*-FV ADV.*today*
 ‘I will be running today’

A future time period must be specified if the PAST tense marker is omitted so (6.25) and (6.26) are grammatical:

- (6.25) *Ngi-ta-b-e* *ngi-tawu-gijim-a* *nge-n-simbi*
 SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*run*-FV ADV.PFX-9-*bell*
- ye-li-shumi* *ebusuku* *namuhla*
 PC9-5-*ten* LOC.ADV.*at night* ADV.*today*
- ‘I will be about to run at 10 in the night today’

- (6.26) *Ngi-ta-b-e* *ngi-tawu-gijim-a* *kusasa*
 SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*run*-FV ADV.*tomorrow*
 ‘I will be about to run tomorrow’

The absence of the prefix and presence of the FUTURE markers in the auxiliary and lexical verbs encode FUTURE IN THE FUTURE and the sense that the event is expected to take place (INCEPTIVE aspect).

In summary, with prefixal *be-* Event time must be anterior to Speech time but without prefixal *be-* Event must be posterior to Speech time. With prefixal *be-* however the

entailment is that the Event did not occur i.e. it was prevented by something or someone (CONDITIONAL) whereas without prefixal *be-* the Event is perceived as likely to occur (INCEPTIVE) but as it is still future there is also a possibility that the event did not occur.

The examples that have been discussed above have analysed the semanticity of prefixal *be-* and in (6.27) and (6.28) I show that ALTERATIVE and PERSISTIVE aspects can be encoded in the INCEPTIVE compound verbs. Example (6.27) is FUTURE IN THE PRESENT an absolute IMPERFECTIVE form which encodes INCEPTIVE. In the morphologically encoded IMPERFECTIVE tenses the auxiliary encodes the ‘future’ (INCEPTIVE) element, i.e. the sense of ‘about to’ or ‘going to’ do something imminently and places the action in the past depending on the presence or absence of the PAST tense marker *be-*. Example (6.27) also shows that FUTURE IN THE PRESENT can encode ALTERATIVE aspect and (6.28) indicates Persistivity by using the conjunction *solo*. INCEPTIVE aspect is encoded in the auxiliary and ALTERATIVE in the lexical verb of FUTURE IN THE PRESENT.

- (6.27) *Ngì-tàwu-b-è* *sé-ngì-náts-à* *kusása*
 SC1sg-IMM.FUT-*be*-FV ALT-SC1sg-*drink*-FV ADV.*tomorrow*
 ‘I am now about to drink tomorrow’

- (6.28) *Ngì-tàwu-b-è* *soló* *ngì-náts-à*
 SC1sg-IMM.FUT-*be*-FV CONJ.*still* SC1sg-*drink*-FV
 ‘I am still about to drink’ (67.17)

The other two IMPERFECTIVE compound tenses (FUTURE IN THE PAST and FUTURE IN THE FUTURE) can also encode ALTERATIVE and PERSISTIVE aspects in their lexical verbs.

I now consider the effect of the INCEPTIVE/CONDITIONAL aspects on tense shift in the stative and the semantic effect of *be-*:

The prefix past tense marker *be-* distinguishes (6.29) from (6.30):⁶⁶

- (6.29) *Ngì-tà-b-è* *ngì-lèl-è*
 SC1sg-IMM.FUT-*be*-FV SC1sg-*sleep*.STAT.PERF-FV
 ‘I am about to sleep’ (Ziervogel and Mabuza, 1976: 105)

⁶⁶ The following two examples are from my fieldwork data and consultant discussions but the tone markings are Z&M’s.

- (6.30) *Bé-ngí-tá-b-è* *ngí-lêl-è*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-*sleep*.STAT.PERF-FV
 ‘I was about to sleep’
 ‘I would have been asleep’ (Ziervogel and Mabuza, 1976: 102)

It is the PAST tense and aspect marker which encodes CONDITIONAL aspect. The responses do have a PERFECT marker as they are PERFECT STATIVE which usually encodes a tense shift, and this is the case with these two examples although the auxiliary not the lexical verb usually encodes tense. The PAST tense marker encodes PAST tense in (6.30) and its absence results in PRESENT tense in example (6.29) which is INCEPTIVE FUTURE IN THE PRESENT⁶⁷ and (6.30) is CONDITIONAL FUTURE IN THE PAST.

The sense of the FUTURE PERFECT is ‘I will have been sleeping’ which indicates a PERFECTIVE viewpoint looking backward from a Reference time posterior to the Event which is ambiguously either anterior or posterior to Speech time. The perspective of the absolute tense FUTURE IN THE PRESENT in (6.29) is looking forward from Speech time contemporaneous with Reference time to a period when the speaker will be sleeping (Event time). The perspective of the relative tense FUTURE IN THE PAST in (6.30) is looking forward from Reference time which is in the past and anterior to Speech time to a period when the speaker will be sleeping (Event time) which is also anterior to Speech time.

Example (6.31) illustrates the effect of the REMOTE FUTURE marker in the compound tenses:

- (6.31) *Ngì-yàwù-b-è* *ngí-lêl-è*
 SC1sg-REM.FUT-*be*-FV SC1sg-*sleep*.STAT.PERF-FV
 ‘I am about to sleep’

The form encodes the INCEPTIVE FUTURE IN THE PRESENT but what is significant is the choice of the REMOTE FUTURE marker (-yàwù-) which refers to a posterior Event time later than that which would be encoded by the IMMEDIATE FUTURE marker (-tá-) in example (6.29). This response reveals a significant feature of the compound tenses, that the

⁶⁷ Because of the tense shift this STATIVE PERFECT form encodes PRESENT tense and so I refer to it as FUTURE IN THE PRESENT because of the morpho-semantics. Although not attested I would posit that *ngí-ta-be ngí-lal-a* would have the sense of ‘I am about to go to sleep’ which would also be FUTURE IN THE PRESENT but with a dynamic not stative sense. See chapter four example (4.80).

INCEPTIVE aspect encodes the sense of ‘about to’ i.e. that the event is imminent and the REMOTE FUTURE marker also entails that the event is imminent, but implies the speaker considers the event is less certain and/or less imminent.

This section has looked at a series of attested examples which display INCEPTIVE and CONDITIONAL aspect and analysed the functionality of the prefixal *be-*. In terms of temporality if the *be-* prefix is present then the Event must be anterior to Speech time to be grammatical, but if it is absent then Event must be posterior to Speech time. It was established that ALTERATIVE and PERSISTIVE aspects could be encoded in the compound verb forms. A similar analysis was conducted for statives and the effect on the tense shift seen with those verbs. All the verb forms reviewed displayed IMMEDIATE FUTURE tense but while INCEPTIVE aspect encodes an imminent Event, with a REMOTE FUTURE marker, the occurrence of the Event is less imminent and less certain.

6.5 Analytic and contracted compound forms

In this section my analysis of the analytic and contracted forms reveals that whilst the contracted forms may be more common in modern speech, as suggested by Z&M, the analytic forms are not yet obsolete and have contrasting semantic profiles (Ziervogel and Mabuza, 1976: 103) with CONDITIONAL aspect usually encoded in the analytic but not always the contracted forms.

Example (6.32) which Z&M term the REMOTE PAST CONTINUOUS is the contracted version of (6.33) and the PAST tense concord *ngá* and the subject concord *ngi* are contiguous, with both markers encoding subject person and number. Its compound nature is obscured as it drops the auxiliary *be-*.

- (6.32) *Ngá-ngi-náts-a*
 REM.PAST.SC1sg-SC1sg-*drink*-FV
 ‘I was drinking’

The full (or analytic) form (6.33) is virtually unknown in modern speech according to Z&M but like (6.32) it indicates an unbounded event (IMPERFECTIVE).

- (6.33) *Ngá-b-é* *ngí-náts-a*
 REM.PAST.SC1sg-*be*-FV SC1sg-*drink*-FV
 ‘I would be drinking’
 ‘I was drinking’ (Ziervogel and Mabuza, 1976: 103)

My translation is based on my fieldwork data and as is usual with the analytic forms the CONDITIONAL is encoded (see section 6.4).

As there is no PERFECT marker in the analytic form of (6.33) or the second verb in (6.34) they encode IMPERFECTIVE aspect. This is despite the fact that in the simple REMOTE PAST form (*nga-nats-a*) PERFECTIVE aspect is encoded (‘I drank’). In the analytic form the auxiliary *-be* encodes IMPERFECTIVE aspect as it does when acting as tense/aspect marker. These two roles are instances of two stages in its grammaticalization process, so both analytic and contracted forms encode IMPERFECTIVE aspect. Where *be-* appears as PAST tense marker in contracted forms it encodes PAST tense and IMPERFECTIVE aspect, but has reduced from an analytic form in which it was an auxiliary which has dropped the subject concord (*ngi-be* > *be-*). This process contrasts with (6.32) above where in the contracted form the PAST tense concord is retained and *be-* is dropped (*nga-be* > *nga-*).

- (6.34) *Ku-b-e* *ngi-tfol-ile* *i-coke*
 SC15-*be*-FV SC1sg-*find*-DIS.PERF 9-*coke*
- nga-b-e* *ngi-nats-a* *yona*
 REM.PAST.SC1sg-*be*-FV SC1sg-*drink*-FV AP9
- ‘I found a coke (that) I would have been drinking’

The sense of (6.34) is that drinking did not occur and without the PAST auxiliary, the short form (6.32) encodes IMPERFECTIVE REMOTE PAST tense. Examples (6.32) and (6.34) show that both analytic and contracted forms are IMPERFECTIVE which is expected as the auxiliary *be-* is present in the analytic form. What is unexpected is that my consultants assert that the activity took place in the contracted form but did not take place with the analytic form which contrasts with Z&M’s analysis where drinking occurred in both forms. This is a feature of the rest of the examples in this section detailed below.

In (6.35) and (6.36) with PERSISTIVE aspect marker *-sa-* a similar pattern is seen. The analytic form in (6.35) with a PAST tense concord, a PAST auxiliary and a lexical verb

encodes IMPERFECTIVE aspect as does the contracted form in (6.36). The sense of the analytic form which encodes CONDITIONAL aspect is that drinking did not take place as something was preventing it but with the contracted form drinking occurred.

- (6.35) *Nga-be* *ngi-sa-nats-a*
REM.PAST.SC1sg-*be*-FV SC1sg-PERS-*drink*-FV
'I would have still been drinking'

- (6.36) *Nga-ngi-sa-nats-a*
 REM.PAST.SC1sg-SC1sg-PERS-*drink*-FV
 ‘I was still drinking’

The analytic form with PERFECT lexical verb (6.37) was said in the context of ‘because it was not the drink I expected I did not drink’ so drinking did not take place. The contracted form is stative which encodes an intoxicated sense.

- (6.37) *Nga-be* *ngi-nats-ile*
REM.PAST.SC1sg-*be*-FV SC1sg-*drink*-DIS.PERF
'I would have drunk'

- (6.38) *Nga-ngi-nats-ile*
 REM.PAST.SC1sg-SC1sg-*drink*-DIS.PERF
 ‘I was drunk’

Example (6.39) was uttered in the context of ‘not drinking because of so-and-so being here’. The analytic form is consistently encoding negation and the contracted form (6.40) in this example indicates that drinking did not take place either. Both analytic and contracted forms are IMPERFECTIVE and CONDITIONAL.

- (6.39) *Nga-be* *ngi-tawu-nats-a*
REM.PAST.SC1sg-*be*-FV SC1sg-IMM.FUT-*drink*-FV
'I would be drinking'

- (6.40) *Nga-ngi-tawu-nats-a*
 REM.PAST.SC1sg-SC1sg-IMM.FUT-*drink-FV*
 ‘I would be drinking’

Example (6.41) was uttered in the context that the speaker ‘is drunk or he has no drinking money and this is an obstacle to his drinking otherwise he would still be drinking’ so the analytic form entails that drinking did not take place. The contracted form (6.42) was said

in the context that ‘before I took the drink someone interrupted me’. Tense and aspect for (6.41) and (6.42) are REMOTE PAST, IMPERFECTIVE, CONDITIONAL and PERSISTIVE. Both forms have the sense of something that was expected to happen but did not. The CONDITIONAL here is used in the context which was advised by my consultant as ‘if I had money then I would have drunk’.

- (6.41) *Nga-b-e* *ngi-sa-tawu-nats-a*
 REM.PAST.SC1sg-*be*-FV SC1sg-PERS-IMM.FUT-*drink*-FV
 'I would be still drinking'
- (6.42) *Nga-ngi-sa-tawu-nats-a*
 REM.PAST.SC1sg-SC1sg-PERS-IMM.FUT-*drink*-FV
 'I would be still drinking'

My consultant made no semantic distinction between (6.43) and (6.44). However, the contracted form is not straightforward. If the PAST auxiliary (-*be*) is dropped, then a unitary form is not possible. This is because in the siSwati verbal template the second slot is occupied by the subject concord. The ALTERATIVE aspect marker (-*se-*) cannot take the second slot as the subject concord (-*ngi-*) has to occupy that slot. So necessarily the ‘contracted’ form is also a compound verb form. In section 5.5.4 I made a case for *se-nga-ka* locating in a single slot and with example (6.9) I made a similar case for *be-se* but in this instance there are two subject concords involved (*nga-* and *ngi-*) which I suggest would block such a solution. With both expressions depending on context the range of ALTERATIVE senses would be encoded, including ‘then’, ‘already’ and ‘now’. Both forms are positive IMPERFECTIVE.

- | | |
|--|---|
| (6.43) <i>Nga-b-e</i>
REM.PAST.SC1sg- <i>be</i> -FV
‘I was already drinking’ | <i>se-ngi-(ya)-nats-a</i>
ALT-SC1sg-(DIS.PRES)- <i>drink</i> -FV |
| (6.44) <i>Nga-se</i>
REM.PAST.SC1sg-ALT.AUX
‘I was already drinking’ | <i>ngi-(ya)-nats-a</i>
SC1sg-(DIS.PRES)- <i>drink</i> -FV |

Rycroft lists *ngase* as a deficient verb meaning ‘may possibly, might perhaps’ and followed by SUBJUNCTIVE mood (Rycroft, 1981: 70). However the lexical verb in (6.43) and (6.44) is clearly not SUBJUNCTIVE as it is a disjoint form so I do not consider it to be that

construction. Reviewing all the above examples, there is a clear pattern in this semantic analysis:

Analytic Form	Auxiliary	Lexical verb	Example
IMPERF COND	REM.PAST + <i>-be</i>	PART PRES.	(6.34)
IMPERF COND	REM.PAST + <i>-be</i>	PERS + PART PRES.	(6.35)
PERF COND	REM.PAST + <i>-be</i>	PART PERF.	(6.37)
IMPERF COND	REM.PAST + <i>-be</i>	PART IMM.FUT	(6.39)
IMPERF COND	REM.PAST + <i>-be</i>	PERS + PART IMM.FUT	(6.41)
IMPERF	REM.PAST + <i>-be</i>	ALT + IND PRES.	(6.43)

Table 6.1 Analytic forms

Contracted Form	(Auxiliary)	Lexical verb	Example
IMPERF	REM.PAST	PART PRES.	(6.32)
IMPERF	REM.PAST	PERS + PART PRES.	(6.36)
STAT	REM.PAST	PART STAT.PERF	(6.38)
IMPERF COND	REM.PAST	PART IMM.FUT	(6.40)
IMPERF COND	REM.PAST	PERS + PART IMM.FUT	(6.42)
IMPERF	REM.PAST + <i>-se</i>	IND PRES.	(6.44)

Table 6.2 Contracted forms

In the tabular analysis, with the exception of the PERFECT and stative forms (6.38) and (6.37), all the forms encode IMPERFECTIVE aspect. The term CONDITIONAL has the meaning that the event would have taken place but something prevented it. In my analysis a form can be both CONDITIONAL and INCEPTIVE and one with such dual aspectuality would have the sense that an event would have been just about to happen but did not. Similarly a form can be both ALTERATIVE and PERSISTIVE subject to certain conditions which have been discussed in chapters 4 and 5. Both analytic and contracted forms are acceptable despite the claim that the analytic form is rarely if ever encountered in modern speech. That both analytic and contracted future compounds are CONDITIONAL is predictable as this

conforms to Nurse's observation that a combination of PAST auxiliary and FUTURE lexical verb encodes CONDITIONAL aspect (Nurse, 2008: Appendix isiZulu S42).

There are three issues which are raised by the data. First, the analytic forms all encode CONDITIONAL aspect except (6.43). Secondly the CONDITIONAL is widely encoded but the marker for that aspect (*-nga-* is the POTENTIAL and CONDITIONAL marker) is not present. Finally it seems strange that two tense markers appear together (*nga-* and *-be* are PAST tense concord and PAST auxiliary respectively) in all of the analytic forms. I would posit that *nga-be* is itself a contracted auxiliary, having reduced from *ngi-nga-b-e*. If this were so then these two anomalies are resolved as the CONDITIONAL marker *-nga-* appears, the PAST markers are no longer duplicated and the process is three stages not two as described in the literature (Ziervogel and Mabuza, 1976: 103):

(6.45) *Ngí-nga-b-e* > *Nga-be* > *Nga-*
 SC1sg-POT-*be*-FV REM.PAST.SC1sg-PAST.AUX REM.PAST.SC1sg

The subject concord was dropped and the POTENTIAL/CONDITIONAL marker was re-analysed as a PAST tense concord. This resulted in two tense markers so the PAST auxiliary was dropped in turn.

In this section I have conducted a morpho-semantic review of analytic and contracted forms in siSwati and shown that the analytic forms are still found in modern speech and they are semantically different from the contracted forms but it may be that the analytic forms are becoming obsolete and if this is so then there will be profound effects on the siSwati TAM system as they pass out of use.

6.6 A morpho-semantic analysis of the auxiliary *ngabe*

Ngá-bé followed by the main predicate is a form which Z&M claim is virtually unknown in modern speech (Ziervogel and Mabuza, 1976: 103), yet it was used repeatedly by my informants and in this section, by analysing its morphology and using my data, I show that both analytic and contracted forms are in use and that *ngá-bé* has reduced from a future auxiliary verb.

- (6.46) *Ngá-b-e* *be-ngi-nga-náts-i*
 REM.PAST.SC1sg-*be*-FV PAST-SC1sg-NEG-*drink*-NEG.FV
 ‘I was no longer drinking’

This form (6.46) is not in Z&M’s taxonomy of tenses but the form with the nearest morphology is (6.47) the negative SIMPLE FUTURE CONTINUOUS (Ziervogel and Mabuza, 1976: 110) which I would classify as negative FUTURE IN THE PRESENT:

- (6.47) *Ngí-ta-b-e* *ngi-nga-nats-i*
 SC1sg-IMM.FUT-*be*-FV SC1sg-NEG-*drink*-NEG.FV
 ‘I am not about to drink’
 ‘I shall not be drinking’ (Z&M)

In the dictionary (Rycroft, 1981: 69) *ngabe* is a conjunction of exhortation meaning ‘ought’ or ‘should’ which does not provide a satisfactory explanation and so it appears *ngi-ta-be* has reduced to *nga-be* in (6.46).

To summarize the above, *nga-be* in these responses is curious. As the auxiliary of the analytic form *nga-be ngi-natsa* which contracts to *nga-ngi-nats-a* (described in chapter two and section 6.5 above) it is unproblematic but in the above responses it appears that *nga-be* has reduced from *ngi-ta-be* as this is the only way a relative FUTURE tense can be encoded. In support of this explanation are the responses from my other two informants. As described in chapter 3 (Methodology) three data streams were undertaken, so each interview was conducted with three different informants and the following examples are the other two responses to (6.46) above:

- (6.48) *Ngí-to-b-e* *ngi-nga-nats-i*
 SC1sg-IMM.FUT-*be*-FV SC1sg-NEG-*drink*-NEG.FV
 ‘I was not about to drink’ (Data Stream 2)
- (6.49) *Ngí-tawu-b-e* *solo* *ngi-nga-ka-náts-i*
 SC1sg-IMM.FUT-*be*-FV CONJ.*since* SC1sg-NEG-PERF-*drink*-NEG.FV
 ‘I was no longer about to drink’ (Data Stream 3)

Despite there being three variants of IMMEDIATE FUTURE marker in the auxiliary verbs of the three data stream responses (-*tawu*-, -*ta*- and -*to*-) as described in section 2.2.3.2,

ngi-ta-be would seem to have morphologically reduced to *nga-be* and both analytic and contracted forms remain in common use.

6.7 Summary

The chapter opened with a general morpho-semantic review of the compound tenses with the PAST auxiliary *-be* and the analysis of examples which related to the relative and absolute tenses and PERFECTIVE or IMPERFECTIVE aspectuality. Then there were two sections in which IMPERFECTIVE/PERFECTIVE and INCEPTIVE/CONDITIONAL aspects in compound tenses were analysed. A review of analytic and contracted forms and a morpho-semantic analysis of *ngabe* concluded the chapter.

This chapter concludes the three chapters concerned with the three aspect markers which are the central subjects of this analysis, the PERSISTIVE *-sa-*, the ALTERATIVE *-se* and the INCEPTIVE/CONDITIONAL *be-*. The first two have a common feature as they both link two separate time periods and are described as dual-time period aspects. This last chapter analysed the third aspect, the INCEPTIVE which is encoded jointly by *be-* and the FUTURE marker in the auxiliary verb of compound verbal forms. This marker also encodes PAST tense and CONDITIONAL aspect in what are termed the compound tenses with *be-* in siSwati. Neither the INCEPTIVE nor the CONDITIONAL are dual-time period aspects but belong to the compound tenses with *be-* which are morphologically encoded and comprise a range of relative and absolute tenses which display PERFECTIVE and IMPERFECTIVE aspectuality.

In these three chapters I have presented and analysed the key data gathered during my fieldwork in the light of the standard grammars and more contemporary linguistic positions but in chapters eight and nine, I adopt a more cognitive linguistic approach. Chapter eight is a practical application of one of the major theoretical perspectives of this analysis, Mental Spaces Theory (MST) (Fauconnier, 1985) and the subsequent work of Cutrer on tense and aspect in narrative and natural language which adopts MST as an analytical tool (Cutrer, 1994). In chapter nine I introduce Botne and Kershner's (B&K) cognitive linguistics approach to Bantu TAM systems (Botne and Kershner, 2008). B&K's tertiary timelines and dual domains model is the other major theoretical perspective adopted in this analysis and

is applied to examples incorporating the PERSISTIVE and ALTERATIVE aspect markers *-sa-* and *-se-* and the compound tenses with the PAST/INCEPTIVE tense/aspect marker and auxiliary *be-*.

First, however, in chapter seven I argue that greater salience is afforded changing situations (ALTERATIVE) than continuing situations (PERSISTIVE) in siSwati temporal cognition by describing the dearth of adjectives in the siSwati lexicon, analyzing tense selection (PERFECT/ANTERIOR) and identifying a preference for the [MOVING TIME] cognitive model of time.

7. The salience of change (ALTERATIVE) and continuity (PERSISTIVE) in siSwati temporal cognition

7.1 Introduction

This chapter explores the assertion that in siSwati temporal cognition there is a greater salience of change (ALTERATIVE) over continuity (PERSISTIVE). The first section looks at adjectives and their paucity in the siSwati lexicon and the alternative strategy of relative constructions as modifiers with particular regard to stative and dynamic situations. Two sections follow that describe a cognitive approach to the issue and tense selection in situations where the PERFECT tense/aspect is avoided in order to indicate change rather than continuity. A final section references an earlier study (Nichols, 2006) which identified a preference for the [MOVING TIME] model for time over [MOVING EGO] in siSwati temporal cognition and links this with the assertion in the present work that there is greater salience of change over continuity by positing that there is a compatibility between [MOVING TIME] model for time and ALTERATIVE and the [MOVING EGO] model and PERSISTIVE thus integrating dual-time period aspectuality, temporal cognition and salience.

The chapter is organised as follows: Section 7.2 analyses the greater salience of change over continuity in siSwati temporal cognition as evidenced by the paucity of adjectives. Section 7.3 investigates this issue from a cognitive linguistic perspective and section 7.4 looks at the implications for tense selection. Section 7.5 describes the relationship between cognitive models of time and the dual-time period aspects in terms of salience.

7.2 Analysis of the role of adjectives in siSwati

This section commences with a review of the role of adjectives and their paucity in the siSwati lexicon which has relevance for the assertion that change has greater salience in siSwati temporal cognition than continuity.

Saeed identifies three dimensions for classifying a situation (Saeed, 1997: 108). He includes tense and aspect, but the third dimension is situation type which is a label for the

typology of situations that are encoded in the semantics of a language. Speakers can describe a situation as static or dynamic.

- (7.1) *Wazi* *u-ya-yi-tsandz-a* *in-yama*
 1a. *Wazi* SC1-DIS.PRES-OC9-love-FV 9-meat
 ‘Wazi loves meat’

- (7.2) *Nxamiso* *u-ya-y-ati* *in-dlela* *le-y-a*
 1a. *Nxamiso* SC1-DIS.PRES-OC9-know 9-way RC9-go-FV

e-Pietermaritzburg
 LOC-Pietermaritzberg

‘Nxamiso knows the way to Pietermaritzberg’

Both examples describe states and the speaker gives no information regarding their internal structure other than that they hold for a certain, unspecified duration. In both expressions the disjoint PRESENT tense is used but this is syntactic usage because of the presence of the object concord and there are no aspectual markers describing the internal structure of the event. The next two examples describe dynamic situations which consist of various sub-parts so they have internal structure:

- (7.3) *Wazi* *u-dl-a* *in-yama* *ku-ko*⁶⁸ *k-onkhe* *ku-dla*
 1a. *Wazi* SC1-eat-FV 9-meat 15-ENCL QC-all 15-food
 ‘Wazi eats meat with most meals’

- (7.4) *Nxamiso* *u-ya-shay-el-a* *ku-y-a* *e-Pietermaritzburg*
 1a. *Nxamiso* SC1-DIS.PRES-drive-APP-FV 15-go-FV LOC-Pietermaritzberg
 ‘Nxamiso is driving to Pietermaritzberg’

Eating food consists of a number of actions including cutting the meat, chewing and swallowing it. Nxamiso will follow a journey which takes in numerous towns and crosses a national border. The conjoint PRESENT is used in (7.3) because of the complement and the disjoint form is used in (7.4) because the INFINITIVE does not require the conjoint form so the verbal forms are selected in each example on syntactic grounds. The static and dynamic

⁶⁸ -*ko* is described as a verbal suffix for PARTICIPIAL or SUBJUNCTIVE by Rycroft but I describe as an enclitic (Rycroft, 1981: 53) which appears in relative forms and is often optional. In this unusual construction I consider the full form would be *ku-dl-a-ko* which has reduced in colloquial speech. For more conventional examples of use of -*ko* see next chapter, examples (8.9) and (8.10).

readings emerge from context and prior knowledge of what eating and driving entail and from Idealized Cognitive Models (Lakoff, 1987).

Static and dynamic situations are reflected in lexical choice and in English, adjectives are suited to states and verbs to dynamic situations, but in siSwati the lack of adjectives requires alternative strategies.

- (7.5) *Im-pentjisi i-vuts-iwe*
 4-peach SC4-ripen-PASS.STAT.PERF
 ‘The peaches are ripe/ripened’
 Lit: ‘The peaches they have ripened’

The above is the PERFECT STATIVE of the PASSIVE verb *ku-vutf-w-a* (‘to ripen’) so there is no adjective ‘ripe’ in siSwati and a relative construction performs the adjectival function:

- (7.6) *Im-pentjisi le-vuts-iwe*
 4-peach RC4-ripen-PASS.STAT.PERF
 ‘The peaches that are ripe/have ripened’

Even in static situations in siSwati either a verb or a relative construction is employed as there are only a few basic adjectives in siSwati and the number of adjectival stems is limited. The following is a comprehensive list (Ziervogel and Mabuza, 1976: 51):

-bi	bad	-dzala	old	-fishane	short
-dvuna	male	-khulu	large	-hle	beautiful
-ncane	small	-sikati	female	-dze	long, tall
-sha	young, new	-nyenti	many	-ngaki	how many?
-nye	one, another	-bili	two	-tsatfu	three
-ne	four	-hlanu	five		

Qualifiers in siSwati are classified by the concords which they take. Adjectives take an adjectival concord (AC) whereas relatives take a relative concord (RC). Compared to the number of adjectival stems, there are a greater number of relative stems in the lexicon. Concordial agreement which is fundamental in siSwati was described in chapter two and the RC differs from the AC in the nasal classes in that the AC retains the nasal and the RC

does not: class 1 *lo-* for relative and *lomu-* for adjective. Number one of the five numerals described above as adjectives is strictly speaking an enumerative and takes an enumerative concord (EC) which is distinguished from the AC by not having the initial *la-* element and the nasal in classes 9 and 10.⁶⁹ Table 7.1 details noun classes 1, 2, 9 and 10 for the three types of concord to illustrate their distinctive morphology (Ziervogel and Mabuza, 1976: 51):

Noun Class	Adjectival Concord	Enumerative Concord	Relative Concord
1	<i>lom(u)-</i>	<i>mu-</i>	<i>lo-</i>
2	<i>laba-</i>	<i>ba-</i>	<i>laba-</i>
9	<i>len-</i>	<i>yi-</i>	<i>le-</i>
10	<i>letin-</i>	<i>ti-</i>	<i>leti-</i>

Table 7.1 Qualifiers and their concords (Noun classes 1, 2, 9, and 10 only)

Examples (7.7) to (7.10) demonstrate the three concord types for *um-fana* /*ba-fana* ('boy/s') class 1/2 nouns:

- (7.7) *Um-fana* *lomu-dze*
 1-boy AC1-AS-*tall*
 'A tall boy'
- (7.8) *Um-fana* *mu-nye*
 1-boy EC1-ES-*one*
 'One boy'
- (7.9) *Ba-fana* *laba-bili*
 2-boy AC2-AS-*two*
 'Two boys'
- (7.10) *Um-fana* *lo-ncono*
 1-boy RC1-RS-*better*
 'A better boy'

⁶⁹ The numeral stem *-nye* can take an AC but its meaning becomes 'another' so *um-fana lom-nye* ('another boy'). The four cardinal numbers 2-5 can take an EC in certain constructions including copulatives. The AC drops *-u* with other than monosyllabic stems so *um-fana lom-fishane* ('a short boy') (Ziervogel and Mabuza, 1976: 51).

This categorial predominance of relative over adjectival stems reflects the situation in siSwati temporal cognition where changing, dynamic situations encoded by ALTERATIVE aspect are given a higher profile than continuing, static situations encoded by PERSISTIVE aspect. Peaches cannot be described as ‘ripe’ (PERSISTIVE) but only the fact that they are ‘now ripe’ or ‘have become ripe’, i.e. they were not ripe and now they are ripe (ALTERATIVE).

7.3 A cognitive linguistics approach to change and continuity

Motion is salient to humans but Radden notes that things are more salient than space and spatial information is accessed via objects (Radden, 1997: 148). We talk of ‘the coin in my pocket’ and the pocket stands metonymically for the space designated by the inside of a pocket. Similarly when we conceptualize time in spatial terms, events are more salient than time, so events form natural reference points when orienting ourselves in time. He describes how the daily cycle is divided up into ‘work time’, ‘meal times’ and ‘rush hour’ and this observation is relevant to one of the assertions of this thesis regarding the ALTERATIVE and PERSISTIVE aspects. Change is more salient than continuity in siSwati temporal cognition, which connects with Radden’s position that events are more salient than time. This metonymic process however is limited and Radden argues that in order to understand relationships rather than specific events, temporal relationships are conceptualized metaphorically in terms of spatial relationships.

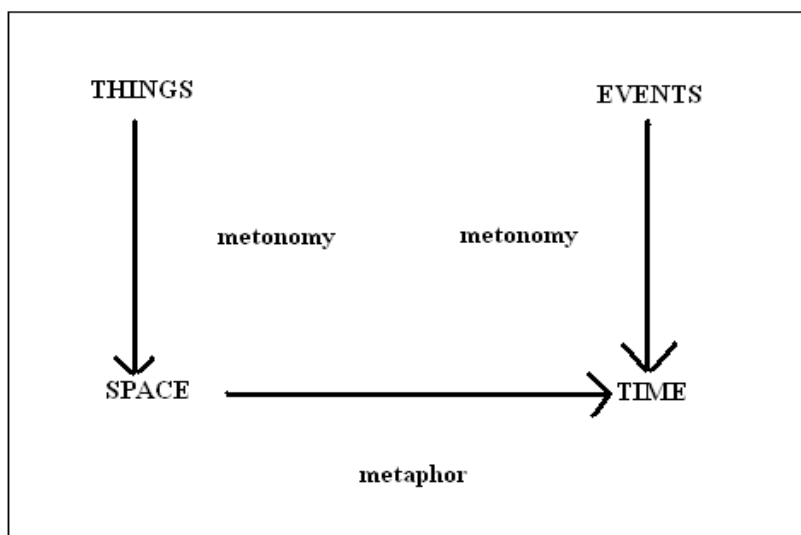


Fig. 7.1 Space, time, things and events

This view of space, time, things and events is diagrammed in Figure 7.1 and supports the argument that in siSwati the ALTERATIVE is favoured over the PERSISTIVE in situations that feature both aspects. Radden claims that we cognitivise temporality through events in the same way that we cognitivise space in terms of things so it is easier to cognitivise occupied space than empty space and time which is full of events than time which is not. The ALTERATIVE aspect is concerned with changing situations, either stopping or starting an activity or switching between activities whereas the PERSISTIVE is concerned with continuity and a preference for the former over the latter is plausible in terms of temporal cognition.

7.4 Tense selection, change and continuity

In this section I contrast the use of PERFECTIVE and IMPERFECTIVE tenses and their relevance for understanding the salience of change over continuity in siSwati. The key feature of the hybrid PERFECT or ANTERIOR tense/aspect, which Rycroft classifies as IMMEDIATE PAST (Rycroft, 1981), is that it encodes events situated in the past which have continuing relevance to the present:

- (7.11) *Thandekile u-wa-cedz-ile ema-phepha a-khe*
 1a. *Thandekile* SC1-OC6-*finish*-DIS.PERF 6-*papers* PC6-PS1
 ‘Thandekile has finished writing her papers’

- (7.12) *Li-ve la-kaNgane la-yi-tfol-a*
 5-*country* PC5-*Swaziland* REM.PAST.SC5-OC9-*obtain*-FV

in-khululeko
 9-*independence*

‘Swaziland has achieved its independence’

(7.13) <i>Ba-ntfu</i> 2-people	<i>nge-ku-hamb-a</i> ADV.PFX.about-15-travel-FV	<i>ba-hlal-a</i> REM.PAST.SC2-stay-FV
<i>ba-lw-andz-is-a</i> REM.PAST.SC2-OC11-increase-CAUS-FV	<i>lu-lwimi</i> 11-language	<i>lw-abo</i> PC11-PS2
<i>ngentasi</i> ADV.on the lower side	<i>ne-Afrika</i> ADV.PFX.of-1a.Africa	

‘The Bantu migrations have spread Bantoid languages over most of sub-Saharan Africa’

Swaziland achieved its independence in 1968 and the Bantu migrations took place centuries earlier (Nurse and Philippson, 2003: 165). In the last of these three examples I am assuming *ba-* is REMOTE PAST.⁷⁰ In each case the sentences were designed to have current relevance (Thandekile’s papers are still finished, Swaziland is still an independent Kingdom and the Bantu languages are still widely spoken in sub-Saharan Africa). A key assertion of this thesis is that change and not continuation is cognitively more salient in siSwati so in these examples my consultant had a choice between the PERFECT to encode the fact that these situations still pertained or to mark the temporal distance and when we discussed the responses and the choice of tenses, she replied that (7.12) and (7.13) ‘happened a long time ago’ whereas (7.11) was recent. Cognitively her response can be said to be concerned with the change that took place rather than the fact that the altered situations continued into the present as she used the tense relevant to the time of change from writing papers to not writing, from being a colony to being independent, from being a local language group to a wide-spread one. The current relevance has not been encoded by use of the PERFECT and so I would suggest that these three examples support the assertion that cognitively change is more salient than continuity in siSwati because the tenses employed in (7.12) and (7.13) are PERFECTIVE which indicates a complete event and there is therefore a strong sense of change occurring.

The possibility that the tense which is labelled in this analysis as the ANTERIOR or PERFECT tense/aspect hybrid does not describe a past event with current relevance and is simply a PERFECTIVE PAST tense was explored in section 4.9 and so it may be that in siSwati there is

⁷⁰ These data were obtained by email so I cannot mark tone. In other persons / number (for example: 1ps *nga-*) the past tense concord is easily identified, but this is not the case in class 2. In any event it is clearly not PERFECT and that is the feature that these examples are intended to illustrate.

a dual division between PERFECTIVE and IMPERFECTIVE tenses and not a tertiary split between PERFECT, PERFECTIVE and IMPERFECTIVE. This would mean that PERFECT tenses are not being avoided, but rather they are not being used because they are not part of the siSwati TAM system. As described in section 4.9 it is not unprecedented for the PERFECT to continue the grammaticalization process and become a PAST or PERFECTIVE tense and this may be what is happening in siSwati (Bybee and Dahl, 1989: 74/5).

7.5 Cognitive models of time, dual-time period aspects and change and continuity

In this section I discuss the assertion that in siSwati temporal cognition, Alterativity (change) rather than Persistivity (continuity) has greater salience, identify a preference for the [MOVING TIME] cognitive model over [MOVING EGO] and discuss the relationship between these models and the ALTERATIVE and PERSISTIVE aspects. I refer to the [MOVING TIME] model which is the label used by other researchers (Evans, 2004, Nichols, 2006) as I refer to their work in this discussion, but it is equivalent to the cognitive model that B&K call [MOVING EVENT] (Botne and Kershner, 2008).

The alternative construal of time proposed by B&K (section 9.4) provides a framework for the analysis of the PERSISTIVE and ALTERATIVE aspects. Their model with three timelines conceptualizes time as a path (timeline 1) or as a stream viewed from a boat (timeline 2) or a bridge (timeline 3). The ALTERATIVE aspect is compatible with the metaphorical construal of [TIME IS THE MOTION OF OBJECTS], whereas the PERSISTIVE aspect is compatible with the temporal metaphor, [TIME IS MOTION ALONG A PATH] (Moore, 2000, Nichols, 2006). The ALTERATIVE aspect and changing situations are regarded as more salient than the PERSISTIVE and a continuing situation and this modelling of time provides insight into this phenomenon. Cognitively EGO (the Speaker) can either see himself moving through time, locked into a contemporaneous present, from the past to the future (PATH metaphor and [EGO MOVING] model) or EGO can conceptualise time as stationary events which he is passing as he approaches the future from the past (STREAM metaphor; EGO in a boat or [MOVING EGO] model). Alternatively EGO can conceptualize time where events are moving past him from the future into the past (STREAM metaphor; EGO on a bridge or [MOVING EVENT/MOVING TIME] model). (Botne and Kershner, 2008: 149). Conceptually the PERSISTIVE is more likely to encode [MOVING EGO] or [EGO MOVING] as EGO continues

with a specific activity. The focus is on EGO and his movement through time. Conversely the ALTERATIVE aspect conceptualizes a change of activity. Doing one thing and then switching to something else. This type of activity is more suited to the [MOVING TIME] or [MOVING EVENT] timeline perspective. In a scenario such as ‘I get up and the time to leave for work arrives, the morning passes in a rush as one meeting after another turns up’ in this series of changing events/activities EGO is continually confronted by changing situations and events.

The following examples illustrate the above, but it is not claimed that the cognitive models and aspects are inextricably paired, merely that the PERSISTIVE and ALTERATIVE aspects have an affinity to the [MOVING EGO] and [MOVING TIME] models of time respectively.

- (7.14) *Be-se* *ngi-bhal-a* *na-ku-fik-a*
 PAST-AUX.ALTSC1sg-write-FV ADV.PFX-15-arrive-FV
- si-khatsi* *se-ku-hamb-a* ⁷¹
 7-time PC7-15-travel-FV

‘Then I was writing as the time for departure was approaching’

In (7.14) the ALTERATIVE morpheme is bound within *be-se* which encodes a change of activity or polarity and the [MOVING TIME] model has been adopted with the sense of time moving as encoded by the use of the motion verb *ku-hamb-a* (‘to travel’) thus supporting the claim that discontinuity/ALTERATIVE aspect and [MOVING TIME] are compatible.

- (7.15) *Be-ngi-solo* *ngi-bhal-a* *ngi-sa-y-a*
 PAST-SC1sg-AUX.still SC1sg-write-FV SC1sg-PERS-go-FV
- e-si-khats-ini* *se-ku-hamb-a*
 LOC-7-time-LOC PC7-15-travel-FV

‘I was still writing as I was approaching the time for departure’

Example (7.15) is grammatical and links PERSISTIVE aspect with MOVING EGO but is unusual and (7.16) is preferred:

⁷¹ The morpheme *-se-* before *ku-hamba*, is a noun class 7 possessive concord and is semantically unconnected with ALTERATIVE aspect and the verb *ku-fika* takes a noun class 15 subject concord as the sense is ‘the time of travelling’.

(7.16)	<i>Be-ngi-solo</i>	<i>ngi-bhal-a</i>	<i>nase</i>	<i>ku-si-khatsi</i>
	PAST-SC1sg-AUX. <i>still</i>	SC1sg-write-FV	CONJ. <i>when</i>	LOC-7-time
	<i>se-ku-hamb-a</i>			
	PC7-15-travel-FV			

‘I was still writing when it was the time for departure’

The preferred expression still links PERSISTIVE to the [MOVING EGO] model so the claim that PERSISTIVE and [MOVING EGO] and ALTERATIVE and [MOVING TIME] are cognitively linked is supported. The literal senses of the two expressions are ‘as I was approaching travelling time’ and ‘at travelling time’, so although (7.16) is less explicit about EGO in motion towards an event, the implication is still that EGO has arrived at ‘travelling time’ and not vice versa.

A study into temporal cognition in siSwati (Nichols, 2006) has shown that [MOVING TIME] is preferred to [MOVING EGO]. When presented with paired sentences in English, one encoding [MOVING TIME] and the other [MOVING EGO], while both were translated into siSwati as requested, informants favoured [MOVING TIME] and on occasion regarded the [MOVING EGO] version as unacceptable in everyday speech. In the same study when requested to express in siSwati situations depicted diagrammatically there was a preference for the [MOVING TIME] model. This study was not concerned with ALTERATIVE and PERSISTIVE aspectuality, so while the preference for [MOVING TIME] over [MOVING EGO] has been studied empirically and the preference for ALTERATIVE over PERSISTIVE is identified in this thesis, the connection between the two is conjecture until empirical work is undertaken.

A further question is whether there is a morpho-semantic connection between the ALTERATIVE and PERSISTIVE aspects and the morphemes that encode them and the dual cognitive domains in the enhanced cognitive model described in B&K’s article and described in section 9.4. The Privileged domain is characterised by the contemporal, here and real while the Dissociated domain is characterised by the non-contemporal, not here and not real. In a changing activity as in example (7.17), either the REMOTE or the IMMEDIATE FUTURE marker can be used and occupy either domain:

- (7.17) *Se-ngi-(taku/yaku)-nats-a* *li-tiya kuphela*
 ALT-SC1sg-(IMM.FUT/REM FUT)-*drink-FV* *5-tea ADV.only*
 'I will now drink tea only'

The PERSISTIVE can also appear in various tenses and occupy either domain:

- (7.18) *Ngi-sa-nats-a* *li-tiya kuphela*
 SC1sg-PERS-*drink-FV* *5-tea ADV.only*
 'I still drink tea only'

- (7.19) *Be-ngi-sa-nats-a* *li-tiya kuphela*
 PAST-SC1sg-PERS-*drink-FV* *5-tea ADV.only*
 'I was still drinking tea only'

- (7.20) *Ngi-sa-(taku/yaku)-nats-a* *li-tiya kuphela*
 SC1sg-PERS-(IMM.FUT/REM.FUT)-*drink-FV* *5-tea ADV.only*
 'I will still be drinking tea only'

So while there is a connection between the ALTERATIVE aspect and [MOVING TIME], and the PERSISTIVE and [MOVING EGO], there is no firm association with the two cognitive domains.

So, *siSwati* temporal cognition is more concerned with changing activities and events (ALTERATIVE) than those that are continuing (PERSISTIVE). A separate study has shown that the [MOVING TIME] cognitive model for time is cognitively more salient in *siSwati* than the [MOVING EGO] model. A related idea is that the ALTERATIVE displays affinity with the [MOVING TIME] model/timeline and similarly PERSISTIVE and [MOVING EGO] but this has yet to be empirically studied and established. However, if these three related issues were confirmed by further research an integrated model of *siSwati* temporal cognition and dual-time period aspectuality could be constructed and represented as in Figure 7.2:

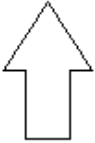
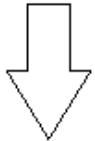
TEMPORAL COGNITION				
A S P E C T U A L I T Y	ALTERATIVE	[MOVING TIME] [MOVING EVENT]		S A L I E N C E
	PERSISTIVE	[MOVING EGO]		

Fig. 7.2 Aspectuality and salience in siSwati temporal cognition

In this diagram the directional arrows indicate respectively greater or lesser salience attached to ALTERATIVE (change) and PERSISTIVE (continuity) aspectuality and the cognitive models for time are placed indicating the affinity of [MOVING EGO] with PERSISTIVE and [MOVING TIME] with ALTERATIVE.

7.6 Summary

This analysis asserts that in siSwati temporal cognition there is a greater salience of change (ALTERATIVE) over continuity (PERSISTIVE). In support of this position this chapter has looked at the paucity of adjectives in the siSwati lexicon and the alternative strategy of relative constructions as modifiers with particular regard to stative and dynamic situations. Two sections followed which described a cognitive approach and tense selection in situations where the PERFECT tense/aspect is avoided which may indicate a preference for change rather than continuity. A final section referenced an earlier study (Nichols, 2006) which identified a preference for the [MOVING TIME] model for time over [MOVING EGO] in siSwati temporal cognition and linked this with the assertion of the present work by positing that there is a compatibility between [MOVING TIME] model for time and

(ALTERATIVE) and the [MOVING EGO] model and (PERSISTIVE) thus linking dual-time period aspectuality, temporal cognition and salience.

In the next two chapters I apply the two major theoretical approaches to my data which are Mental Spaces Theory (chapter eight) and the cognitive linguistics approach of Botne and Kershner to Bantu TAM systems (chapter nine).

8. The analytical application of Mental Spaces Theory

8.1 Introduction

One of the two theoretical constructs on which this thesis is built is Mental Spaces Theory (MST) (Fauconnier, 1985) supplemented by further work which specifically addressed the issues of tense, aspect and mood (Cutrer, 1994). The approach adopted in this analysis is cognitive and the theoretical perspectives are focused on understanding temporal cognition through the use of cognitive models, discourse analysis and meaning construction. To facilitate this approach I describe the main features and principles of MST followed by a practical application of its use.

This chapter is structured as follows. Section 8.2 reviews MST including an example discourse in siSwati with a sub-section that features Cutrer's later work. Section 8.3 is a detailed discourse in the form of a practical application of the theory incorporating the aspectual markers with which this analysis is concerned, the PERSISTIVE, ALTERATIVE and INCEPTIVE markers, *-sa-*, *-se-* and *be-*. The explanatory power and descriptive qualities of this approach are evaluated and contrasted with those of Botne and Kershner's cognitive model which is the subject of chapter nine (Botne and Kershner, 2008).

8.2 Mental Spaces Theory

In this section I introduce the basic principles of cognitive semantics which laid the groundwork for the development of Conceptual Metaphor Theory (CMT) followed by Conceptual Blending Theory (CBT) in which mental spaces feature and are integral elements in both CBT and MST. I then discuss space builders which prompt for the creation of mental spaces and identify the aspectual markers which are central to this analysis (ALTERATIVE, PERSISTIVE and INCEPTIVE) as space builders. I define the key terms of Base, Viewpoint, Focus and Event which organise the construction of the lattice of mental spaces in the representation of a discourse and the section concludes with an example discourse in siSwati which is analysed using the principles of MST.

Cognitive semantics is a branch of cognitive linguistics which has been described as ‘...research on conceptual content and its organisation in language’ (Talmy, 2000: 4) and began as a reaction to truth-conditional semantics and the objectivist world-view which had developed within formal linguistics and was seen as eliminating cognitive organisation from the linguistic system (Evans and Green, 2006: 156). There are four central assumptions of cognitive semantics: (1) the embodied cognition thesis, (2) semantic structure is conceptual structure, (3) meaning representation is encyclopaedic and (4) meaning construction is conceptualisation (Evans and Green, 2006: 157). The first assumes that conceptual organisation arises from our bodily experience. For example a person in a locked room experiences containment, partly as a result of the properties of the room and partly the properties of the human body, so a person cannot crawl under the door as can an insect and this concept of containment is called by cognitive linguists an image schema. The concept ‘container’ can give rise to more abstract kinds of meaning, such as ‘Thandekile is in love’ or ‘Lungile is out of work’ and by projection the container image schema can give rise to the metaphor [LOVE is a CONTAINER] which is a basic example illustrating CMT (Lakoff and Johnson, 1980: 32, Johnson, 1987, Lakoff, 1987). The second principle asserts that language refers to concepts in the mind of the speaker rather than to objects in the external world so semantic structure (the meanings conventionally associated with linguistic units) are equated with concepts. Semantic structure is described as encyclopaedic because it is held that words do not represent packages of meaning (the ‘dictionary’ view) but serve as ‘points of access’ to a vast repository of knowledge. Finally the assertion that meaning construction is conceptualization means that language itself does not encode meaning, but linguistic units (words) are prompts for the construction of meaning, which is a process rather than a ‘thing’ (Evans and Green, 2006: 157-162).

Turner and Fauconnier, in their joint work on CBT resolved many of the deficiencies in CMT which failed to provide convincing explanations for certain processes routinely conducted by human cognitive faculties (Turner and Fauconnier, 1995). Conceptual blends comprise three types of mental spaces designated Input, Generic and Blend Spaces and mapping between these spaces is a situated, context-bound process. In conceptual blends the two contrasting input spaces are linked by means of the generic space and combined in the blend space to form a viable meld of properties that is non-factual but imaginable. There are at least two input spaces to a blend, which consist of the basic information that is

necessary in its construction. The inputs in the input spaces are linked, so in the blend ‘If Swaziland had a constitutional monarchy like Britain, they would have been critical of Mugabe’s regime’, Swaziland would be one input space and Britain the other. Generic space contains what the input spaces have in common in the development of the conceptual integration network: the Head of State (monarchy), a foreign policy, human rights record etc. The counterpart issues contrast starkly: (1) a constitutional as opposed to an absolute monarchy, (2) criticism of Mugabe compared with support, (3) a good human rights record in contrast to human rights violations. The generic space contains information that is abstract enough to be common to both inputs and this motivates the identification of cross-space counterparts in the input spaces (Evans and Green, 2006: 404). Finally the input spaces project into the blend space where the two counterpart blocks of data are mapped into a single entity, so using the Swaziland example, in the blend space, Swaziland is a constitutional monarchy, and is unafraid to criticize the Mugabe regime because the Kingdom no longer abuses its citizens’ human rights (Fauconnier and Turner, 2006: 306/7).

Mental spaces are cognitive structures and replaced the notion of possible worlds so the allocation of situations is done in the mind of the speaker or hearer not some unclear metaphysical location (Croft and Cruse, 2004: 33).

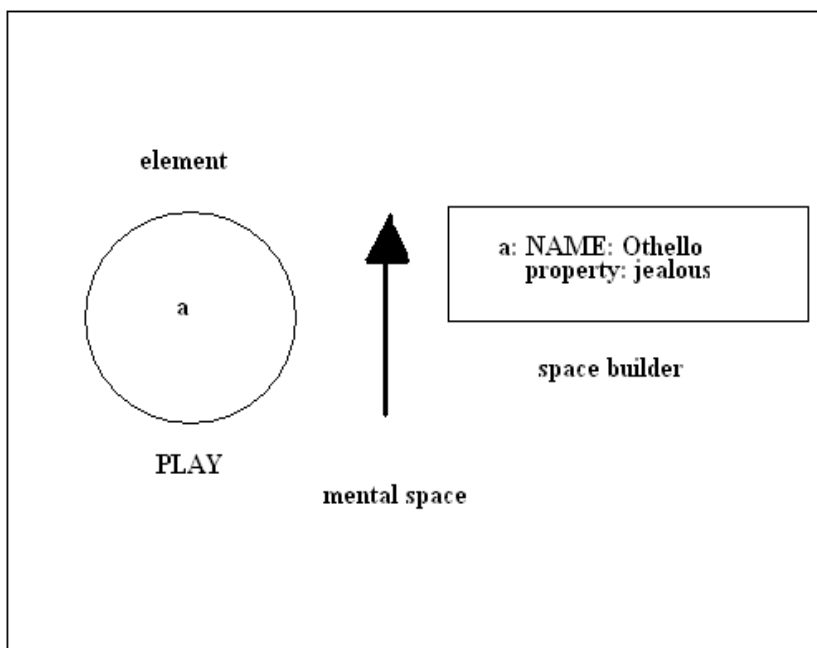


Fig. 8.1 Mental space

Space builders are phrases (i.e. ‘at the shop’ or ‘in 2000’) and elements consisting of names, descriptions and pronouns and have properties and relations as in expression (8.1) which is depicted in Figure 8.1 above:

(8.1) In that play Othello is jealous.

The concept of mental spaces underlies MST and describes cognitive processes in every day discourse that CBT does not address (Fauconnier, 1985). MST provides insight into siSwati temporal cognition and the TAM system and facilitates the analysis of the meaning of sentences, constructions and texts. Mental spaces are regions of conceptual space that contain specific kinds of information and are constructed ‘on-line’ resulting in unique and temporary ‘packets’ of conceptual structure which enable the construction of an ongoing discourse. Mental spaces and the mappings between them can generate unlimited meanings as shown in the example discourse which follows (Evans and Green, 2006: 369). The theory assumes that meaning construction is guided by discourse context and does not distinguish between semantics and pragmatics, positing that words are not containers employed by language as a conduit for meaning (Evans and Green, 2006: 367). In MST Fauconnier has described his ideas as ‘back-stage cognition’ (Evans and Green, 2006: 368) because much of what occurs in meaning construction takes place as unseen conceptualization processes in which language encodes basic instructions in order to create complex ideas.

This approach to meaning construction is relevant to Botne’s cognitive approach to Bantu TAM systems (Botne and Kershner, 2008) where the morpho-semantics of Bantu tense systems are analysed in terms of cognitive models of time and MST which can explain the contextual complexities inherent in temporal cognition. The cognitive approach is central to my description of the morphologically encoded IMPERFECTIVE relative tenses which I described in chapter six. To understand how a situation can be perceived from different temporal cognitive perspectives using different tense/aspect markers, MST and cognitive models are essential, analytical tools.

In the discourse example which follows, mental spaces proliferate into a lattice by what Fauconnier calls the ‘Optimization Principle’⁷² and they are linked by connectors which integrate counterparts with identities and the ‘access principle’ licences connections between counterparts (Fauconnier, 1985).

Identities have roles (i.e. ‘the President’) and values (‘the person who is President i.e. Barack Obama’) and spaces integrate with TAM systems to utilise the following terms which describe the status of mental spaces in the discourse as it unfolds:

B	=	Base space (which anchors the lattice)
V	=	Viewpoint (from which the discourse is currently being reviewed)
F	=	Focus (where new content is added)
E	=	Event (describes time associated with the event)

Mental spaces can introduce counter-expectational interpretations:

(8.2)	<i>Pholile</i>	<i>u-cabang-a</i>	<i>kutsi</i>	<i>lu-fudvu</i>
	1a. <i>Pholile</i>	SC1- <i>think</i> -FV	CONJ. <i>that</i>	11- <i>tortoise</i>
	<i>lu-ya-phut-is-a</i>		<i>kodvwa</i>	<i>lu-ya-phang-is-a</i>
	SC11-DIS.PRES- <i>be slow</i> -CAUS-FV		CONJ. <i>but</i>	SC11-DIS.PRES- <i>be fast</i> -CAUS-FV
	‘Pholile thinks that the tortoise is slow, but it is fast’			

Pholile u-cabang-a kutsi (‘Pholile thinks that’) is a space builder, and sets up a Belief space relative to the Base space. Both Pholile and the tortoise are elements in the Base space and each have their counterparts in the Belief space. The access principle ensures that connectors are established between the counterparts and the Optimization Principle ensures that information in the Base space is transferred to the Belief Space. *Kodvwa lu-ya-phang-is-a* (‘but it is fast’) consists of information related to reality and so is added to the Base space and not the Belief space. *Kodvwa* (‘but’) introduces the counter-expectational interpretation and signals that the Optimization Principle is blocked so the

⁷² Not to be confused with Cutrer’s nine Discourse Organisation Principles (DOP) in section 8.2.1 (Cutrer, 1994) or Botne’s three ‘Organising Principles’ encountered in chapter nine (Botne, 2006).

contradictory information is restricted to the Base space. This prevents Pholile from believing that the tortoise is both fast and slow in the discourse (Evans and Green, 2006: 384).

The Base represents the starting point and space to which the discourse may return. Utterances are construed as situating events or states in a Base space, which is normally the present reality. They contain elements described as space builders which include in their meaning the setting up of a new space, different from the Base space but linked to it. Space builders include a wide range of semantic phenomena corresponding to possible worlds, a variety of other operators, including temporal expressions, image contexts, fictional situations, games, negation, disjunction and quantification (Croft and Cruse, 2004: 33). So when we think and speak, linguistic units called space builders either prompt for a new space or shift between previously constructed spaces. Space builders can be prepositional phrases ('in 2000'), adverbs ('possibly') or connectives ('then') amongst others and require the hearer to set up a scenario beyond the 'here and now' which can reflect future or past reality or be a hypothetical situation (Evans and Green, 2006: 371).

The ALTERATIVE aspect marker *-se-* qualifies as a space builder, because of its aspectual and dual-time period properties. As an aspect marker it encodes a change of state, either in terms of polarity or activity, as described in section 5.2.1 and so motivates the construction of a new space whereby the new and the old states are represented by mental spaces. Additionally, having constructed these twin spaces it establishes a vital, semantic connection between them. Similarly the PERSISTIVE aspect marker is a space builder by virtue of its dual-time period properties and the role it performs in establishing a new space in which the activity being described is still persisting or still not persisting. The two spaces are linked and inter-dependent as are those with the ALTERATIVE aspect marker. It is this linking process which distinguishes the space-building role of *-sa-* and *-se-* from other aspect markers which are not dual-time period aspect markers. The tense/aspect marker *be-* encodes the sense of an imminent event (INCEPTIVE), a prevented event (CONDITIONAL) and/or the PAST tense, so all three of the key morphemes in this analysis qualify as space builders.

In this discourse example, I illustrate how the following text comprising of expressions (8.3) to (8.11) can be represented using the principles described above in accordance with MST. The TAM system participates in discourse management, and as the discourse progresses the spaces coincide and diverge, shift and overlap.⁷³ Viewpoint, Focus and Event can merge or split according to the particulars of the discourse (Evans and Green, 2006: 389/393).

Stage Expression

- (8.3) 1 *Thandekile u-ya-fundz-a*
 1a.*Thandekile* SC1-DIS.PRES-*study*-FV
 ‘Thandekile is studying/studies’
- (8.4) 1 *Thandekile u-ne-mi-nyaka le-nge-ma-shumi lama-ne*
 1a.*Thandekile* SC1-ADV.PFX-4-year RC4-COP.PFX-6-ten AC6-four
 na-ku-tsatfu
 ADV.PFX.*and*-15-three
 ‘Thandekile is forty three years’
- (8.5) 1 *Thandekile u-li-Swati*
 1a.*Thandekile* SC1-5-Swazi
 ‘Thandekile is a Swazi’

I have provided three separate options for the initial utterance of the discourse which is described as Stage 1. In siSwati because of copulative predication (see section 2.4) a sentence may be non-verbal as in examples (8.4) and (8.5) but despite the absence of a verb Focus and Event spaces are still constructed as shown below. As stated in 2.4 a full range of tenses can be used in these non-verbal constructions (Rycroft, 1981: xviii). The verbal predicate of a sentence is either a verbal form or a copulative and either can make a viable sentence (Ziervogel and Mabuza, 1976: 137) as in (8.4) and (8.5) both of which can establish the Event space.

- (8.6) 2 *Wa-hlal-a e-Ningizimu Afrika*
 REM.PAST.SC1-*stay*-FV LOC-9.*South Africa*
 ‘She has lived in South Africa’

⁷³ In this description mental spaces have been simplified by excluding the dialogue boxes detailing elements, links, properties and relations

- (8.7) 3 *E-mi-nyaka* *lemi-bili* *le-yinkhulungwane* *a-be-hlal-a*
 LOC-4-years AC4-two RC4-thousand SC1-PAST-stay-FV

e-Jozi
 LOC-Johannesburg

‘In 2000 she lived in Johannesburg’

- (8.8) 4 *Kwa-nyalo*⁷⁴ *u-hlal-a* *e-Pitoli*
 REM.PAST.SC15-ADV.now SC1-stay-FV LOC-Pretoria
 ‘She currently lives in Pretoria’

- (8.9) 5 *Ku-lom-nyaka*⁷⁵ *lo-ta-ko* *u-taku-y-a*
 LOC-DP3-year RC3-come-ENCL SC1-IMM.FUT-move-FV

e-Thekwini
 LOC-Durban

‘Next year she will move to Durban’

- (8.10) 6 *Ku-lom-nyaka* *lo-landzela-ko* *u-taku-y-a*
 LOC-DP3-year RC3-follow-ENCL SC1-IMM.FUT-move-FV

e-Ngilandi
 LOC-England

‘The following year she will move to England’

- (8.11) 7 *Nga-lesi-khatsi* *u-ta-b-e* *a-sa-hlel-i*⁷⁶
 ADV.PFX-DP7-time SC1-IMM.FUT-be-FV SC1-ALT-stay.STAT.PERF-FV

e-Ningizimu Afrika *imi-nyaka* *le-sihlanu*⁷⁷
 LOC-South Africa 4-years RC4-five

‘By this time she will have lived in South Africa for five years’

⁷⁴ *Kwa-* in the construction *kwa-nyalo* is described as possessive or past tense concord for noun class 15 or 17. It seems strange that a past tense concord would appear in a construction with *nyalo* but the alternative (possessive concord) seems more unlikely (Rycroft, 1981: 54). I would posit that it is an idiomatic expression similar to English ‘once upon a time’ with a literal sense of ‘it was at this time...’

⁷⁵ *Ku-* in addition to its role as prefix and subject concord for noun classes 15 and 17 acts as a locative prefix for noun classes 1, 1a, 2 and 2a or absolute pronouns and demonstrative pronouns as in (8.9) and (8.10).

⁷⁶ This is one of several irregular verbs which do not have the usual morphology in the stative. Another is *ku-suts-a* (-*suts-i*) (‘to be full’). There are also irregular verbs with FV *-i* rather than usual *-a* such as *kw-ati* (‘to know’) and *ku-tsi* (‘to speak’). Z&M state that the FV (*-i*) of these verbs is part of the root (1986: 75). The FV *-i* normally encodes NEGATIVE.

⁷⁷ The numeral adjectival stem *-hlanu* (‘five’) takes an adjectival concord but *-sihlanu* (‘five’) is a relative stem and takes a relative concord. Z&M describe *-sihlanu* as used in abstract counting but compare with *lama-ne* (‘four’) in (8.4) which takes an adjectival concord and *na-ku-tsatfu* (‘three’) (*ku-tsatfu* and *ku-ne* are used in abstract counting) (Ziervogel and Mabuza, 1976: 227).

I analyse this discourse applying the principles of MST using lattice-style diagrams that show how Base, Viewpoint, Focus and Event (B, V, F and E) diverge and reunite as the discourse unfolds.

Stage 1

- (8.3) *Thandekile u-ya-fundz-a*
 1a. *Thandekile* SC1-DIS.PRES-study-FV
 ‘Thandekile is studying/studies’

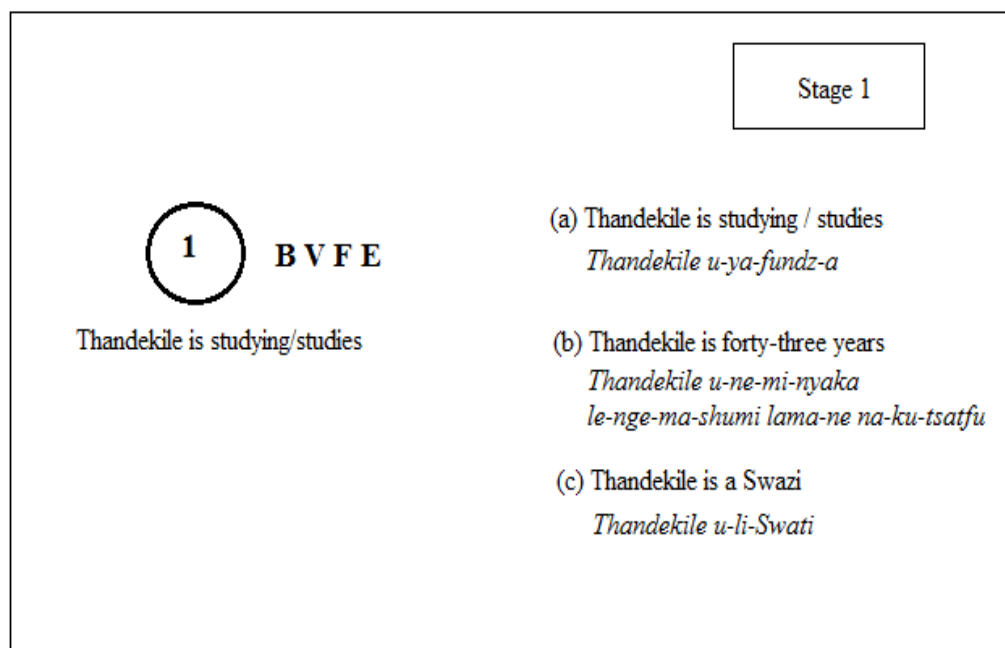


Fig. 8.2 Mental spaces lattice (Stage 1)

In stage 1, which is the opening utterance of the discourse, *Thandekile u-ya-fundz-a* establishes the Base space and Viewpoint, Focus and Event relate to the status of the mental spaces in the discourse expressions (8.3) to (8.11). MST is about discourse management and how participants follow aspectual and temporal shifts in perspective and is achieved linguistically through the TAM system and lexically by means of temporal adverbs and (in the case of siSwati) tone. Tense and aspect signal time reference whereas mood and modality reflect epistemic distance which expresses the speaker’s opinion or knowledge of the actuality of the propositions of each mental space. The expression is PRESENT tense which has relevance to Event which establishes the discourse in the Base space. In stage 1

all four elements occupy the initial space and the expression used in Fig 8.2 is example (8.3) which is the first of the three stage 1 options:

- (8.4) *Thandekile u-ne-mi-nyaka*⁷⁸ *le-nge-ma-shumi* *lama-ne*⁷⁹
 1a. *Thandekile* SC1-ADV.PFX-4-year RC4-COP.PFX-6-ten AC6-four
na-ku-tsatfu
 ADV.PFX.and-15-three
 ‘Thandekile is forty three years’

Expression (8.4) is a non-verbal construction and (8.5) displays copula inflection:

- (8.5) *Thandekile u-li-Swati*
 1a. *Thandekile* SC1-5-Swazi
 ‘Thandekile is a Swazi’

All three alternatives encode PRESENT tense so Event is still ‘now’ and Viewpoint and Focus are similarly unaffected with Focus being Thandekile and her activity, age or nationality. Had I chosen to use one of the other two options (Thandekile’s age or nationality) as the opening utterance of this discourse, the absence of a substantive verb would have had no effect. The Focus in the Base space would have then been either ‘Thandekile is 43 years’ or ‘Thandekile is a Swazi’.

⁷⁸ The predicate of the sentence is the copula adverbial prefix *na-* and coalescence has taken place (*na* + *imi-* = *ne-mi-*). The adverbial prefix *ne-* is used with nouns and *na-* with pronouns. *Ne-* is used to form a possessive construction in *u-ne-mi-nyaka* and means ‘have’ whilst *na-* when used with infinitival prefix *ku-* has the conjunctive sense (‘and’).

⁷⁹ There are few adjectives in siSwati as described in section 7.2 and one source lists twelve and five numerals of which ‘four’ is one (Ziervogel and Mabuza, 1976: 51). There are two noun classes where the relative and adjectival concords differ and they are noun class one: *lomu-* (AC), *lo-* (RC) and nine: *len-* (AC), *le-* (RC). The plural noun classes (two and ten) also differ (see section 7.2).

Stage 2

- (8.6) *Wa-hlal-a* *e-Ningizimu Africa*
 REM.PAST.SC1-stay-FV LOC-9.South Africa
 'She lived in South Africa'

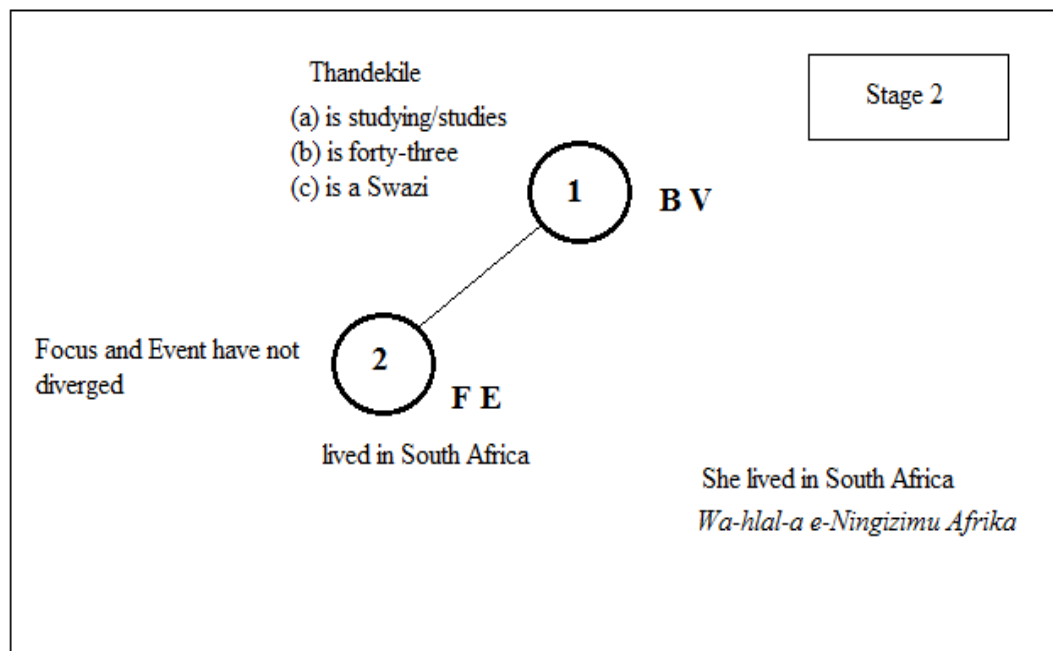


Fig. 8.3 Mental spaces lattice (Stage 2)

Stage 2 represents the second utterance in the discourse and the temporal marker (Event) shifts to a new space leaving the Viewpoint with the Base space. Focus follows Event to the new space as the REMOTE PAST is PERFECTIVE so Focus and Event do not diverge. The PERFECTIVE is bounded and unconcerned with the internal temporal constituency of Event and would not impede Focus from following Event to the new space. Had the PAST tense/aspect marker *be-* been used instead of *wa-* the Focus would still have shifted with Event. The tense of the verb (PERFECTIVE *wa-hlal-a*) is the space builder for this new space and dictates how it is constructed so Focus shifts with Event.

Stage 3

(8.7) *E-mi-nyaka lemi-bili le-yinkhulungwane a-be-hlal-a*
 LOC-4-years AC4-two RC4-thousand SC1-PAST-stay-FV

e-Jozi
 LOC-Johannesburg

‘In 2000 she was living in Johannesburg’

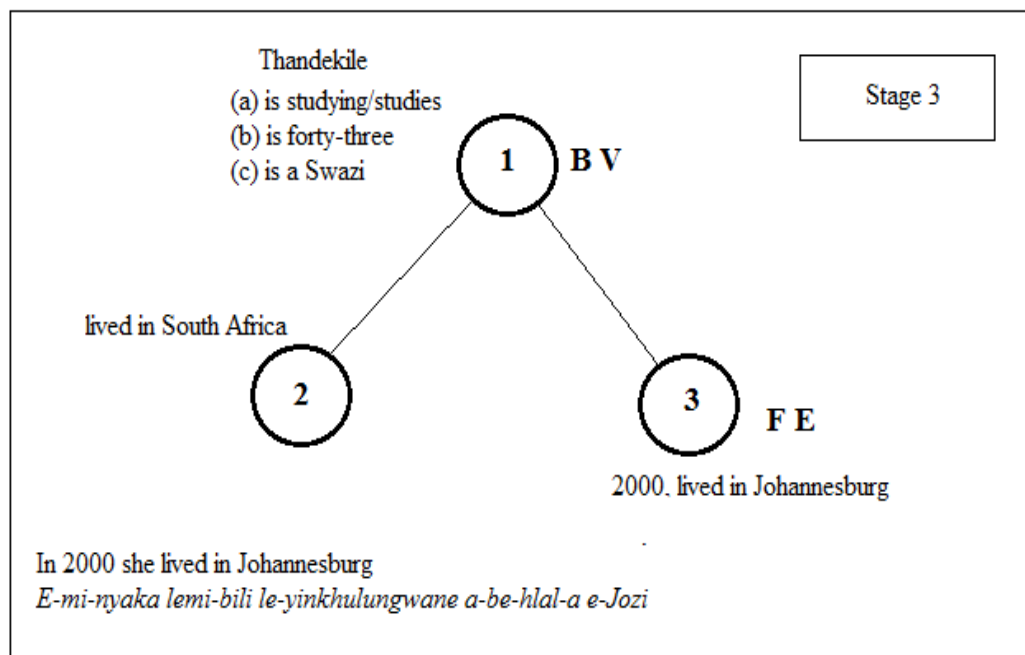


Fig. 8.4 Mental spaces lattice (Stage 3)

E-mi-nyaka lemi-bili le-yinkhulungwane (‘in 2000’) is a space builder and establishes a third space and Focus and Event shift there. The PAST tense with *be-* is used and Focus shifts to MS3 from MS2.

The choice of tense and aspect is vital to lattice construction as by using the PAST tense (which is IMPERFECTIVE and describes an unbounded event) a new space is created which does not link back via Focus to an earlier space. Focus moves to the new space and though the discourse is still viewed from the perspective of the student Thandekile, her living in South Africa is now back-grounded and the participants are focused on where she lived in 2000 (the space builder). The Viewpoint of the discourse is still embedded in the Base

space. In Figure 8.4 I included all three options which illustrated copulative predication in siSwati, but henceforth for ease of display I will include (8.3) only.

Stage 4

- (8.8) *Kwa-nyalo* *u-hlal-a* *e-Pitoli*
 REM.PAST.SC15-ADV.now SC1-stay-FV LOC-Pretoria
 ‘She currently lives in Pretoria’

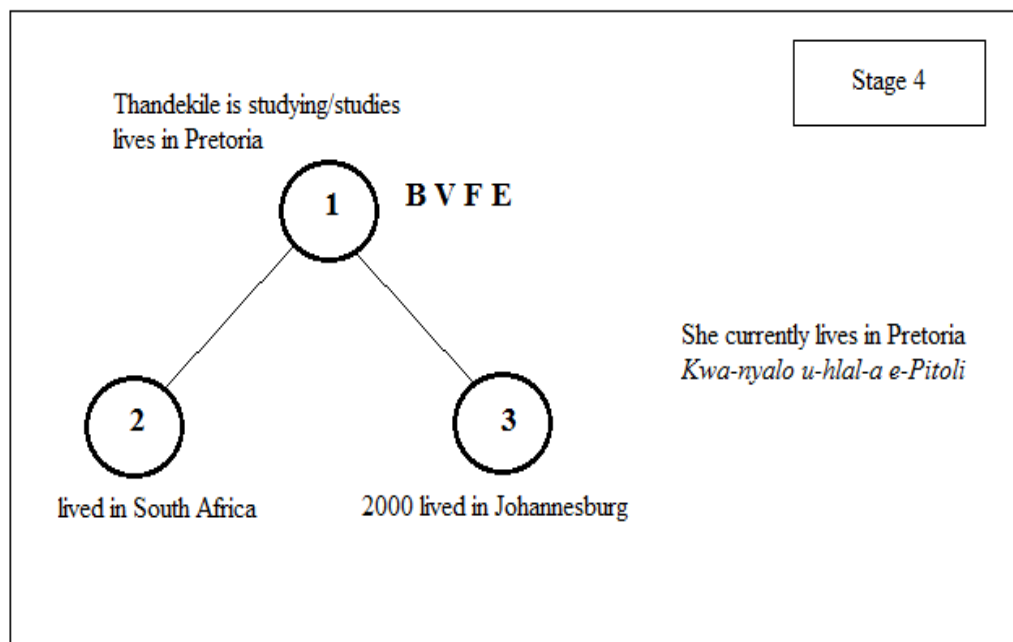


Fig. 8.5 Mental spaces lattice (Stage 4)

In expression (8.8) the verb form is PRESENT tense and returns Focus to the Base space which continues to be the Viewpoint and has recaptured both Focus and Event because of the return to the present. *Kwa-nyalo* ('currently') and the conjoint PRESENT tense are the space builders taking the discourse back to Base. MS2 and MS3 are still in play within the lattice, but have been back-grounded and the participants are again focused on the present (Thandekile's student status and residence in Pretoria). However they are still aware that she has lived in South Africa at least since 2000 and was formerly resident in Johannesburg. The lattice remains in play until there is a change of subject and return to the Base space does not eliminate the lattice (see the un-diagrammed final expression (8.13) discussed below). However if the speaker shifted attention from Thandekile's educational and residential details and uttered the following:

- (8.12) *Nxamiso* *li-tibulo* *la-Thandekile* *li-fundz-el-a*
 1a.Nxamiso 5-eldest son PC5-1a.Thandekile SC5-study-APP-FV
- t-emnotfo* *e-KZN* ⁸⁰ *edvute* *n-e-Thek-w-ini*
 8-economics LOC-KZN ADV.near ADV.PFX-LOC-5.bay-PLC-LOC

‘Thandekile’s eldest son, Nxamiso is studying economics at KZN near Durban’

A completely new lattice would be instigated, terminating the current discourse.

Stage 5

- (8.9) *Ku-lom-nyaka* *lo-ta-ko* *u-taku-y-a*
 LOC-DP3-year RC3-come-ENCL SC1-IMM.FUT-move-FV
- e-Thekwini*
 LOC-Durban

‘Next year she will move to Durban’

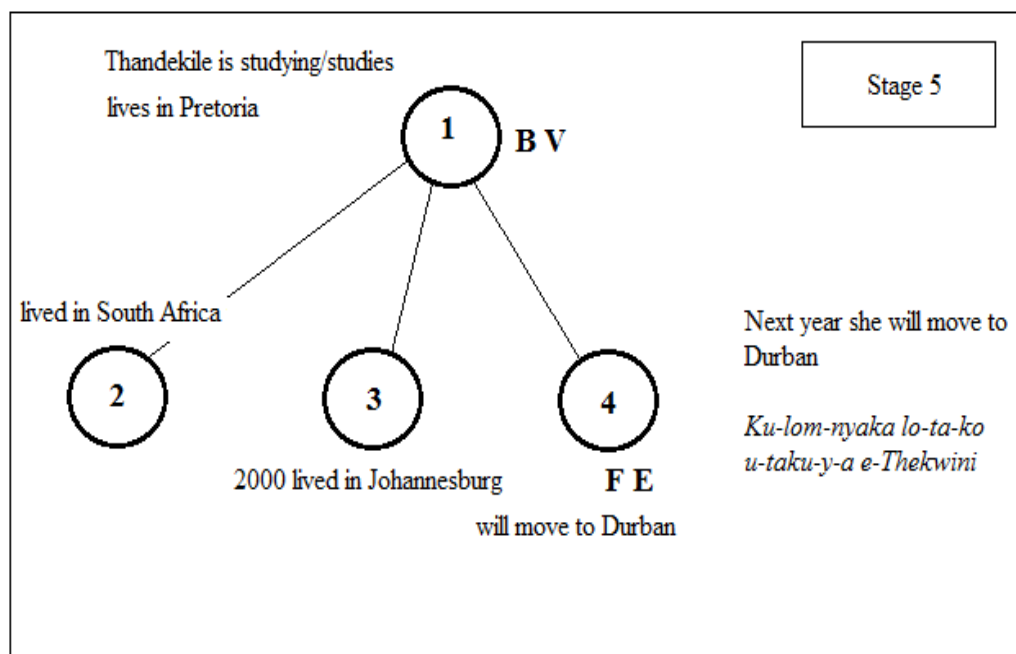


Fig. 8.6 Mental spaces lattice (Stage 5)

The FUTURE tense and *ku-lom-nyaka lo-ta-ko* (‘next year’) are the space builders so MS4 is established to which Focus and Event shift, leaving Viewpoint in the Base space and

⁸⁰ KZN are the initials of KwaZulu-Natal University

aspectual content is absent in this purely temporal development. Focus moves to MS4 indicating that there is no current relevance to the Base space. Thandekile will move to Durban and take up residence so her student status and residence in Pretoria are no longer the focus of this new discourse event. However Viewpoint does remain embedded in the Base space. This discourse is still unfolding from the perspective of Thandekile and her studying in Pretoria.

Stage 6

- (8.10) *Ku-lom-nyaka lo-landzela-ko* *u-taku-y-a* *e-Ngilandi*
 LOC-DP3-year RC3-follow-ENCL SC1-IMM.FUT-move-FV LOC-England
 'The following year she will move to England'

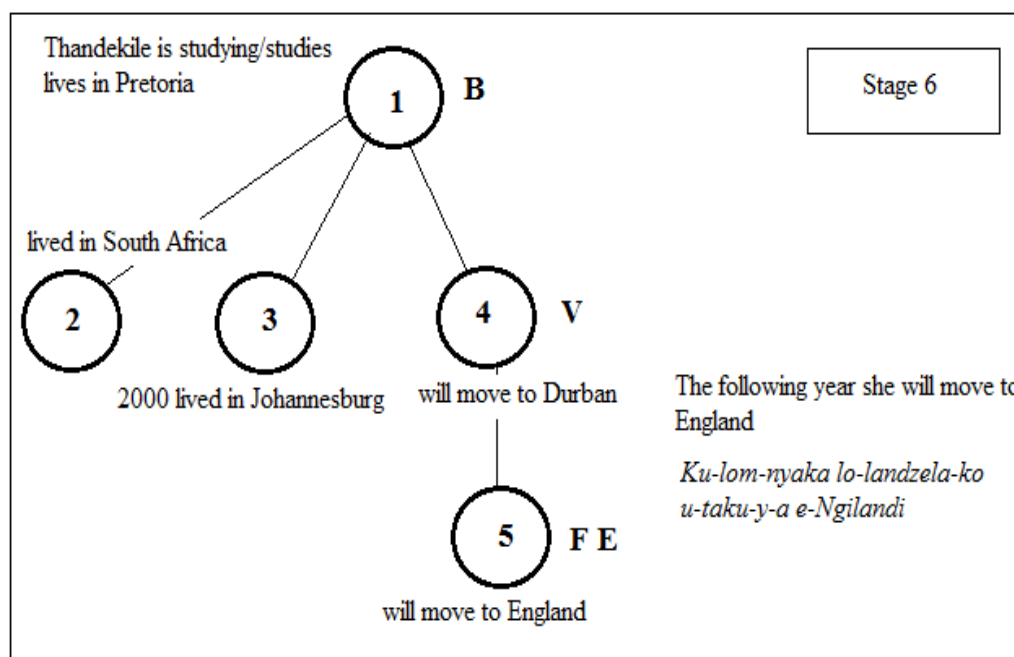


Fig. 8.7 Mental spaces lattice (Stage 6)

In this penultimate stage *ku-lom-nyaka lo-landzela-ko* ('following year') and the FUTURE tense are space builders so Focus moves with the temporal marker (Event) to MS5. The tense is IMMEDIATE and not REMOTE FUTURE as might be expected as the lattice expands away from the Base space, because the significant criteria are speaker intention and certainty not temporal proximity. The speaker is certain that this move will take place and signals this by using the IMMEDIATE FUTURE. However the space builder does not relate back to the Base space but to the period in Durban so Viewpoint leaves the Base space for

MS4. The lattice continues to expand and retain the connection with the initial Base space because this discourse is still about Thandekile studying in Pretoria and only when that connection is severed will a new Base space be established with a new discourse and the process of lattice-building will start afresh.

Stage 7

- (8.11) *Nga-lesi-khatsi* *u-ta-b-e* *a-sa-hlel-i*
 ADV.PFX-DP7-time SC1-IMM.FUT-be-FV SC1-ALT-stay.STAT.PERF-FV
- e-Ningizimu Afrika* *imi-nyaka* *le-sihlanu*
 LOC-South Africa 4-years RC4-five

‘By this time she will have lived in South Africa for five years’

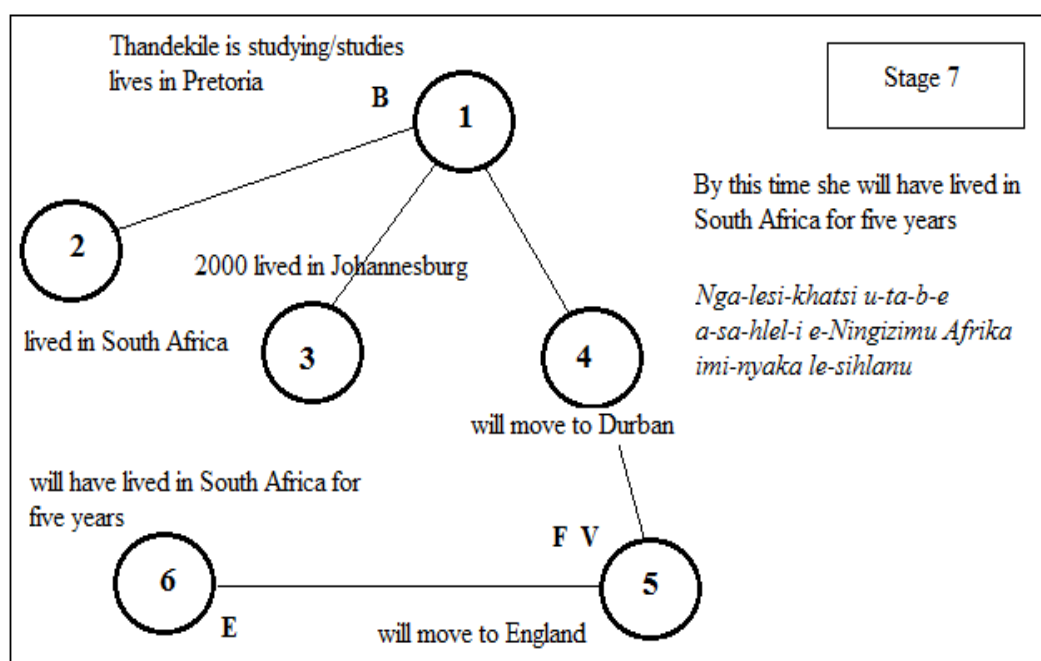


Fig. 8.8 Mental spaces lattice (Stage 7)

In this final stage the sentence contains the STATIVE PERFECT FUTURE *u-ta-b-e a-sa-hlel-i* which signals that MS5 is now the Focus space and a new Event space is established at MS6 and Viewpoint moves to MS5. The space builders in Stage 7 are *imi-nyaka le-sihlanu* ('five years'), the total time Thandekile has spent in South Africa (but see further comments below), *nga-lesi-khatsi* ('by this time'), the ALTERATIVE aspect marker and STATIVE PERFECT FUTURE tense. We know she lived in Johannesburg in 2000 and then

Pretoria and plans to move to Durban and England. Her time in South Africa will total five years and the Viewpoint on this period will be from MS5 where she departed the country at which time she can look back over the entire duration of her stay.

This analysis posits the existence in siSwati of morphologically encoded IMPERFECTIVE tenses in addition to the PERFECT forms. Because of the relevance of this assertion to the last example, the observations which follow refer to both the form of the elicited expression and the siSwati response. In expression (8.11), Viewpoint remains at MS5 as the discourse is still focused on events following on from Thandekile's move to England. Focus remains at MS5 because the FUTURE PERFECT has relevance back to the move to England. MST can show precisely why this aspectual tense is called the PAST IN THE FUTURE as it is a completed Event which is future to the original Base space, connected to, and with relevance back to an anterior space.

The FUTURE PERFECT in siSwati looks back from a future point in time at an anterior period. The lexical verb (*a-sa-hlel-i*) is STATIVE PERFECT and the auxiliary (*u-ta-b-e*) is IMMEDIATE FUTURE so together they encode the FUTURE PERFECT relative tense. However the ALTERATIVE aspect marker *-se-* appears as *-sa-* in TAM slot four of the lexical verb and like the PERFECT this dual-time period aspect links two spaces. The ALTERATIVE aspect marker is also a space builder which can be thought of as two time points (linked and encoded by *-se-* appearing as *-sa-*) and an intervening period (*imi-nyaka le-sihlanu*). The ALTERATIVE links the period when Thandekile was living in South Africa to the time when she was not. From the discourse it is known that she currently lives in Pretoria and prior to that in Johannesburg but when she arrived in South Africa to commence her five years of residence is not known. We know that she lives in Pretoria (Speech time and present) but the year is not known, only that it is after 2000. The FUTURE PERFECT relates back to the Reference time which is when she moves to England (MS5) when the five years is complete, but the ALTERATIVE links the period when she was living in South Africa to the time when she was not. The reason that the ALTERATIVE aspect marker has such a significant effect is because it is a space-builder. The literal translation of expression (8.11) is 'By this time she will now have lived in South Africa for five years' and being a dual-time period aspect it links the time of commencement of South African residence to the present (*nga-lesi-khatsi...-sa-...*).

Finally a further sentence (not diagrammed) would return V.F.E. to B:

- (8.13) ...*kodvwa* *kwa-nyalo* *Thandekile* *u-fundz-a*
 CONJ.*but* REM.PAST.SC15-ADV.*now* 1a.*Thandekile* SC1-*study-FV*

 e-Pitoli
 LOC-Pretoria

‘...but, at present, Thandekile studies in Pretoria’

Then if followed by a change of subject (as with expression (8.12) above) a new lattice would be originated. It is the new subject matter which inaugurates the new lattice not the return to the Base space which is the present and deictic centre. The STATIVE PERFECT as described in section 4.8 through tense shift encodes present tense and in such a case Focus would diverge and remain in MS6. For example:

- (8.14) ...*kodvwa* *kwa-nyalo* *Thandekile* *u-jabul-ile*
 CONJ.*but* REM.PAST.SC15-ADV.*now* 1a.*Thandekile* SC1-*happy-STAT.PERF*

 e-Pitoli
 LOC-Pretoria

‘...but at present, Thandekile is happy in Pretoria’

Expression (8.11) by virtue of being STATIVE PERFECT and encoding ALTERATIVE aspect is problematic for the location of Viewpoint. Focus and Event are not a problem and *-se-* appearing as *-sa-* within the lexical verb of the relative STATIVE PERFECT locates Focus in MS5 and Event in MS6 as the new mental space created by the ALTERATIVE aspect marker which is posterior to the Base space at the future time when Thandekile has spent five years in South Africa. Viewpoint however for the ALTERATIVE aspect is not from the time of the move to London but from the time when Thandekile first arrived in South Africa as observed above. Viewpoint should therefore be located at MS1 the Base space which is where Thandekile’s residence in South Africa commenced. One solution would be to treat (8.11) as a two-stage process where the STATIVE PERFECT verb shifts Viewpoint to MS5 and divides Focus and Event between MS5 and MS6 as shown and then in a second stage, the ALTERATIVE aspect marker returns Viewpoint to the Base space and shifts Focus to MS6 to rejoin Event. This difficulty is not surprising as both PERFECT/ANTERIOR

aspect/tense and ALTERATIVE aspect are dual-time period aspects and there is no semantic imperative why in situations where they co-occur they should link the same time points.

8.2.1 Mental Spaces Theory and tense-aspect in everyday language

I now introduce the work of Cutrer who describes a set of tense-aspect universals for constructing discourse which operate at the cognitive level. They signal shifts to the primitives (Base, Viewpoint, Focus and Event) in real discourse data and are: PAST, PRESENT, FUTURE, PERFECT, PROGRESSIVE, IMPERFECTIVE and PERFECTIVE (Cutrer, 1994: 87)⁸¹ and I conclude with a worked example in siSwati describing and applying her approach to MST.

Table 8.1 details the functions of tense and aspect in terms of discourse management and has been adapted from Evans and Green who compiled it to summarize the work of Cutrer on MST (Evans and Green, 2006: 394, Cutrer, 1994).⁸² When Cutrer includes the Base space in one of her diagrams it is usually labelled B, but otherwise a ‘parent’ space (which is not necessarily the Base space) will be labelled M and the ‘daughter’ space N. The use of these labels seems to be equivalent to X and Y for designating variables. The label R designates speaker reality and is used rather than B for Base space in the adapted example (8.15).

N = Mental Space (N is the new mental space where Event moves and where Focus moves or diverges. M = Parent or Base space)

	PRESENT	PAST	FUTURE	PERFECT	PROGRESSIVE
TAM	Tense	Tense	Tense	Tense/Aspect	Aspect
Focus	N	N	N	Not N	Not N
View Point	N or M	M (N’s parent)	M (N’s parent)	M (N’s parent)	M (N’s parent)
Event	N not prior to M	N prior to M	N posterior to M	N prior to M	N includes M

Table 8.1 Functions of tense and aspect in discourse management

⁸¹ When describing Cutrer’s work which investigates English and French, I have shown tense and aspect in small capitals whenever she details them without regard to their status in siSwati.

⁸² I have adapted the table to more closely reflect Cutrer’s analysis.

Figure 8.9 describes the PRESENT and Cutrer provides alternatives for this tense where Viewpoint can be M or N's parent.

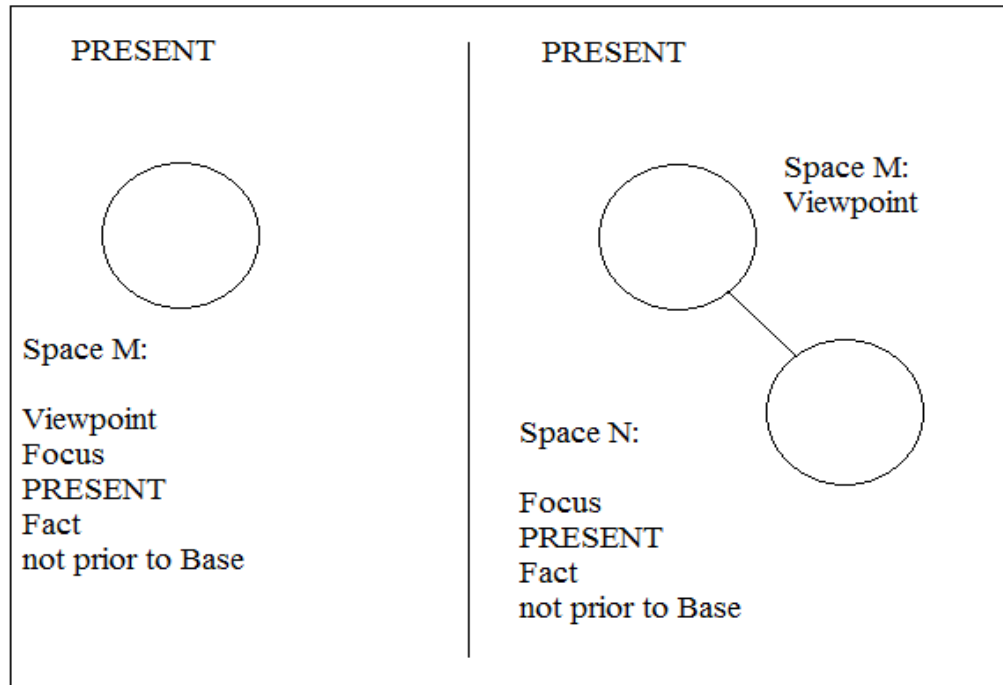


Fig. 8.9 PRESENT tense mental space

The PRESENT tense identifies a present space N or M which indicates that (1) N is in Focus, (2) M or N's parent is Viewpoint, (3) N is not prior to Viewpoint or Base. Whichever alternative is appropriate (3) applies as the key point is that N is not prior to Viewpoint (Cutrer, 1994: 74).

Figure 8.10 diagrams PAST and FUTURE tenses:

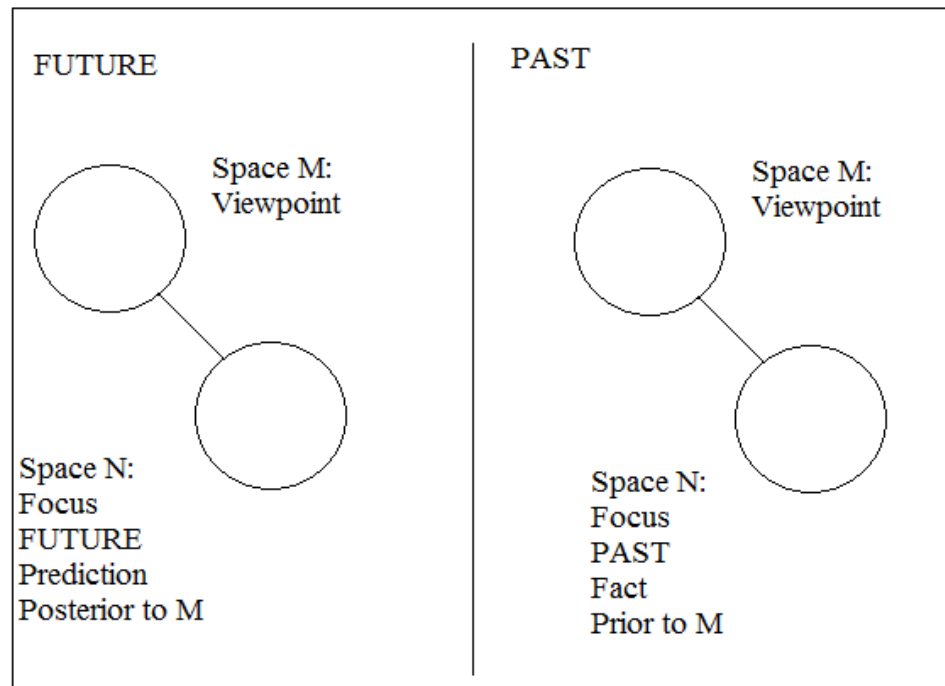


Fig. 8.10 FUTURE and PAST mental spaces

In both tenses N is in Focus and N's parent is Viewpoint, but with PAST tense N is prior to M and with FUTURE tense N is posterior to M.

Cutrer diagrams the hybrid tense/aspect PERFECT and PROGRESSIVE aspect in Figure 8.11:

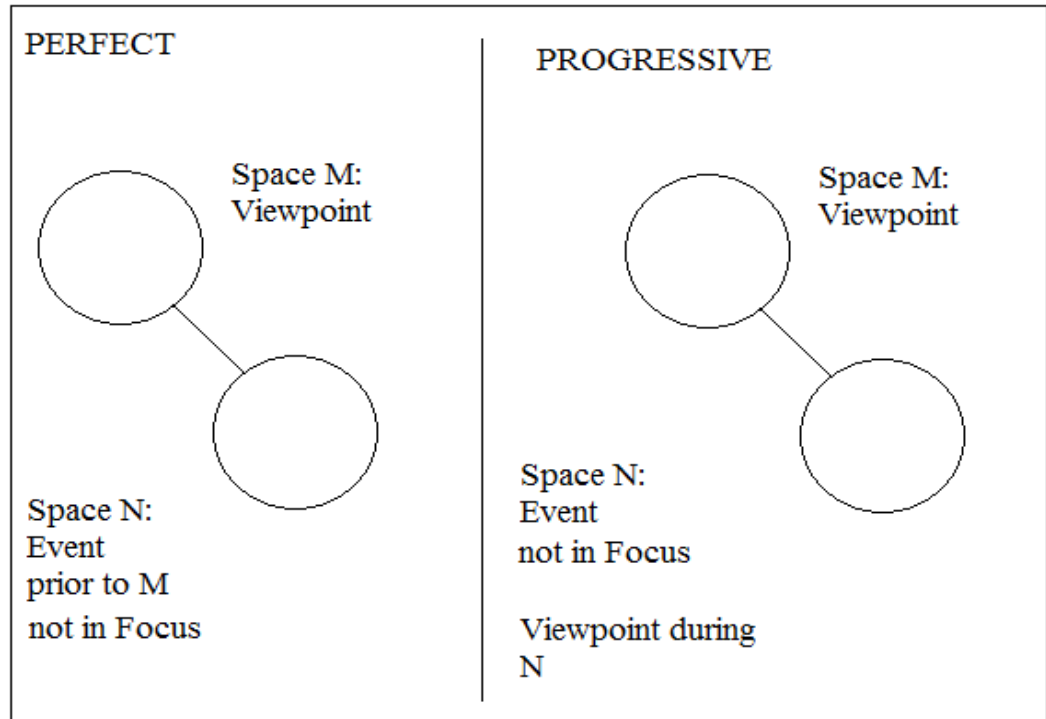


Fig. 8.11 PERFECT and PROGRESSIVE mental spaces

I clarified the distinctive properties of tense, aspect and mood in section 2.2.3.1, setting out my own categorial position and the table and figures above describe what constitutes these three elusive terms. With the PERFECT N is not in Focus, N's parent is Viewpoint and N's time frame is prior to M. The PERFECT displays features of both tense and aspect because its space is completed with respect to Focus which is aspectual but Event and Focus do not occupy the same space. Event is PAST but has current relevance so Focus and Viewpoint will remain in the Parent space when the Event space is created. Similarly with the PROGRESSIVE N is not in Focus, N's parent is Viewpoint but now the time period represented in N includes Viewpoint. The PROGRESSIVE is purely aspectual, as it is not a tense, but as with the PERFECT, Focus and Event do not occupy the same space, so Event is not prior to but included in Viewpoint. The difference between PROGRESSIVE and PERSISTIVE is that the former is an ongoing situation in a single time period where Focus diverges from Event and N includes M. The latter is a situation which persists between two separate time periods and Focus and Event do not diverge and Viewpoint is not included

but linked with the Event. Figure 8.12 illustrates PERSISTIVE and ALTERNATIVE (both dual-time period aspects) in terms of a Cutrer-style diagram:

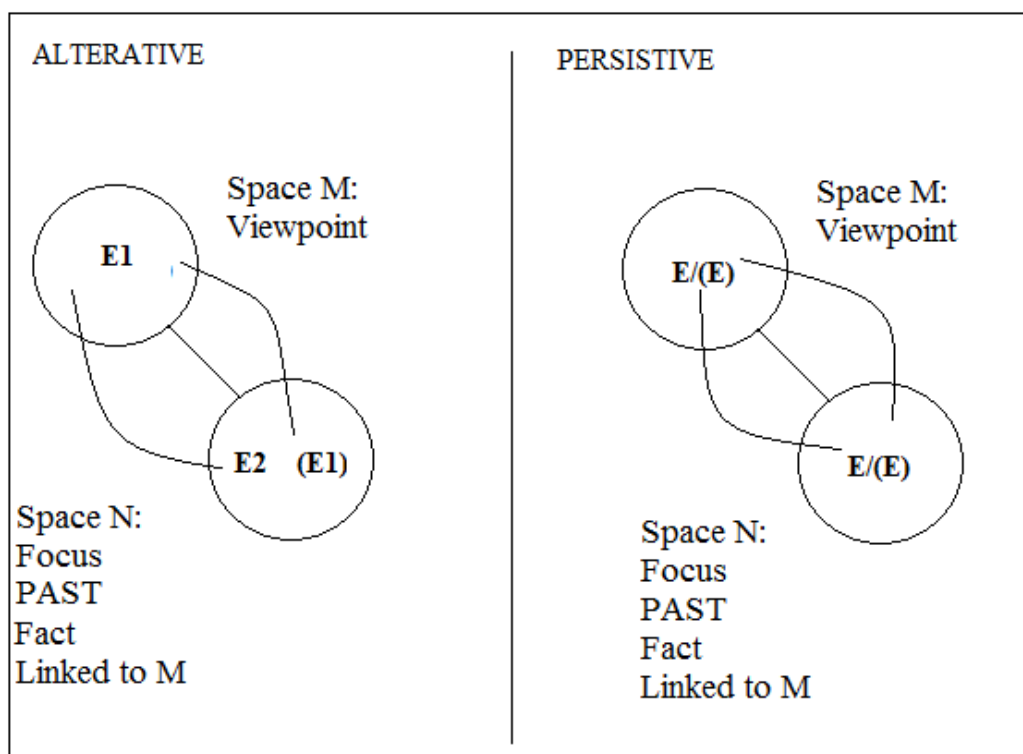


Fig. 8.12 PERSISTIVE and ALTERNATIVE dual-time period aspects

In the ALTERNATIVE diagram the situation described is a change of state where the Event undergoes either a polarity change, (shown as E1 in parentheses in N) or an activity change, (shown as E2 in N). With the PERSISTIVE the Event is either persisting, (shown as E) or not (E is in parentheses) in both spaces M and N. The essential linkages are shown and they distinguish *-sa-* and *-se-* from other non-dual-time aspect markers. Unlike the PERFECT with the ALTERNATIVE and PERSISTIVE Focus moves to N and does not diverge from Event. This is because with the dual-time period aspects, the Focus is not on current relevance but the new Event, although Viewpoint remains at the Base or Parent space (B or M).

Table 8.2 summarises these issues in a similar format as Table 8.1.

	PERSISTIVE	ALTERATIVE	INCEPTIVE	PERFECT	PROGRESSIVE
TAM	Aspect	Aspect	Aspect	Tense/Aspect	Aspect
Focus	N	N	N	Not N	Not N
Viewpoint	M (N's parent)	M (N's parent)	M (N's parent)	M (N's parent)	M (N's parent)
Event	N linked to M	N linked to M	N posterior to M	N prior to M	N includes M

Table 8.2 Functions of tense and aspect in discourse management including PERSISTIVE, ALTERATIVE and INCEPTIVE

The key point is that *-sa-* and *-se-* both create spaces in which Focus and Event have not diverged (unlike the PERFECT where Focus and Event do diverge) although PERFECT, PERSISTIVE and ALTERATIVE all link two separate time periods and can be regarded as dual-time period aspects. While they can be accommodated by MST they are treated differently from aspects representing a single time period such as PROGRESSIVE. Both aspectual markers (*-sa-* and *-se-*) are space builders because of their aspectuality and their dual-time period properties although not all aspects are dual-time period or space builders. For example the Progressive in siSwati is single-time period, not grammaticalized and not a space builder. In section 2.3.1.1 it was noted that both ANTERIOR and PERSISTIVE have been categorized as relative tenses by other authors rather than aspects or moods (Comrie, 1985: 80, Bybee et al., 1994: 318). I classify the PERSISTIVE as an aspect (Nurse, 2008: 124) and the ANTERIOR/PERFECT as a tense/aspect hybrid, but it is interesting that the profiles of the PERSISTIVE and ALTERATIVE aspects and the PAST tense in Table 8.1 display similarities which is a function of their dual-time period aspectuality that has tense-like properties.

The INCEPTIVE is morphologically encoded in siSwati by *be-* and this temporal and aspectual morpheme is a space-builder as it creates a new mental space to accommodate an Event that is ‘about’ to happen.

Cutrer’s dissertation applies MST to the interpretation of everyday language and that part of her work which is relevant to this analysis concerns tense and aspect. She describes the four theoretical discourse primitives as follows:

The Base space is the origin space in a hierarchical matrix of spaces and is the deictic centre containing the initial conceptualizing Viewpoint. It is always present by default and cannot be past or future since those tenses must access a higher space in the matrix hierarchy.

Analytically the Focus space develops from Reichenbach's Reference time and the idea of contextualization which identifies the correct space for meaning construction. Cutrer references Dinsmore who generalizes Reference time in terms of a semantic process of contextualization defined as the temporal perspective taken on the event (Dinsmore, 1991, Cutrer, 1994: 71). The active Focus space is where meaning is constructed and is identified by grammatical cues such as tense, mood and temporal adverbs, degree of activity and communicative function.

The Event space is the temporal space in which the Event encoded in the verb takes place.

Viewpoint is the centre of conceptualization and contains one or more deictic dimensions including; personal, temporal, spatial and realis. A weak Viewpoint will consist of only one dimension, either spatial or temporal, but the canonical Viewpoint will be the speaker and will contain the full array of dimensions including emotional, social and psychological (Cutrer, 1994: 74).

These four primitives are cognitive constructions independent of language and reality and provide the explanatory value for the analysis of tense and aspect in everyday language. Spaces are linked via what Cutrer calls an access path (see section 8.2 and description of the function of the access principle) which is always anchored to Viewpoint or Base. With a simple tense the link is direct between spaces but with a combined tense-aspect form, a chain of links will access the target space via one or more spaces (Cutrer, 1994: 102). The complexity of the access path will affect the stability of the Focus space (Cutrer, 1994: 72) and tense-aspect markers reflect the path, enabling access to a space which involves a path from the parent space (initially Viewpoint) via one or more intermediate spaces to the target space as in Figure 8.13 using example (8.15):

(8.15) *Nga-ngi-nats-ile*

REM.PAST.SC1sg-SC1sg-*drink*-DIS.PERF

itolo

ADV.yesterday

e-khaya

LOC-5.home

'I had drunk yesterday at home'

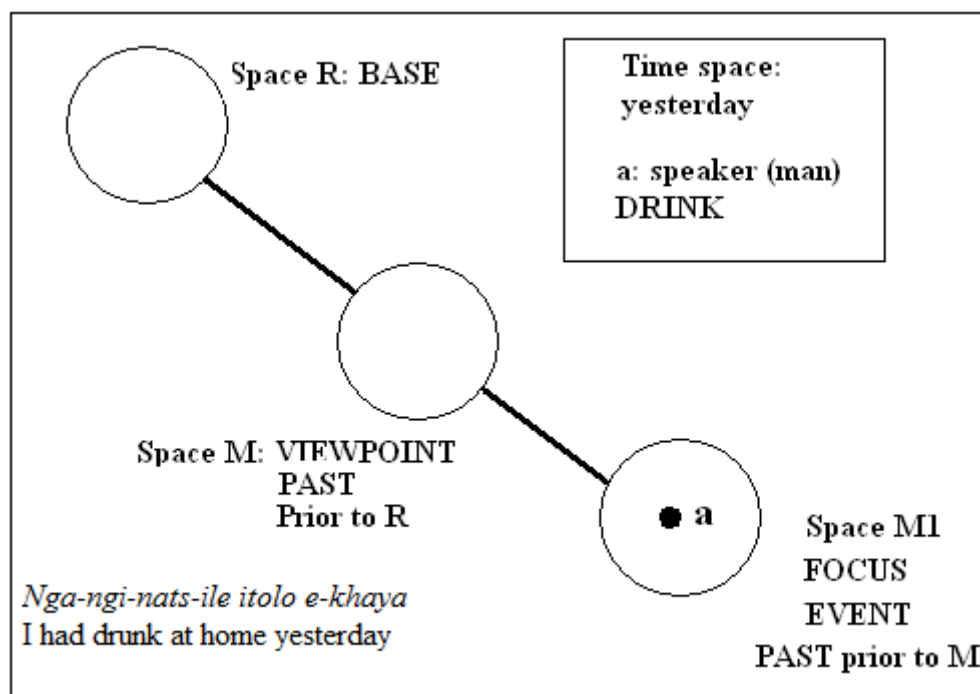


Fig. 8.13 Access path between mental spaces

The Access Path is $R > M > M1$. Base is the anchor point which is speaker reality at Space R as described above. Viewpoint is in the past and prior to R. Event and Focus are in space M1 which is prior to M. The information that establishes the access path and the structure of the spaces is encoded in the tense aspect markers in example (8.15). As Cutrer observes the PLUPERFECT is ambiguous, it may encode a PAST PAST or a PAST PERFECT and example (8.15) is the former which explains why Focus has not diverged and is located with Event in space M1 (Cutrer, 1994: 125). If the example had been a PAST PERFECT a different access path would have been appropriate. The PAST PERFECT ('had drunk') is the past equivalent of both the PRESENT PERFECT ('have drunk') and the PAST SIMPLE ('drunk') (Thomson and Martinet, 1990: 164) and sometimes the PAST PERFECT, which has the meaning of the PAST IN THE PAST (Quirk et al., 1972: 92), may be necessary to resolve

ambiguity as regards sequence of events and the semantic relationship between them (Carter and McCarthy, 2006: 620). My research data has been inconclusive in identifying relative tenses, and examples involving Reference times have usually been problematic with consultants more concerned with relative temporal proximity than shifting Reference times. It is difficult therefore to state conclusively that the ambiguity seen in the English PLUPERFECT is reflected in siSwati and the above analysis demonstrating the nature of the access path of compound tenses should be read in this light.

The four primitives are ever-present although distributed among spaces within the matrix according to certain rules as the discourse unfolds. These rules arise from grammatical (e.g. tense-aspect), lexical and pragmatic information and Discourse Organisation Principles (DOP). There are nine DOP and they apply to temporal, spatial, counterfactual and other types of spaces. Cutrer stresses that the tense-aspect categories are not representations of semantic form but characterizations of conceptual discourse links and are universal. They are separate from language and may be encoded by grammatical conventions of individual languages (Cutrer, 1994: 94).

8.3 Analytical application of Mental Spaces Theory

In this final section I work through an example discourse which contains consultant attested expressions representing the main subjects of my analysis, the ALTERATIVE and PERSISTIVE aspects, both of which act as space builders, together with compound tenses encoding IMPERFECTIVE and PERFECTIVE aspectuality.

Stage 1 (a)

- (8.16) *Peter* *be-ka-fundz-el-a* *e-Nyuvesi*
 1a.*Peter* PAST-SC1-*study*-APP-FV LOC-*University*
- ya-s-e-Sussex*
 PC9-PLC-LOC-*Sussex*
- ‘Peter was studying at Sussex University’

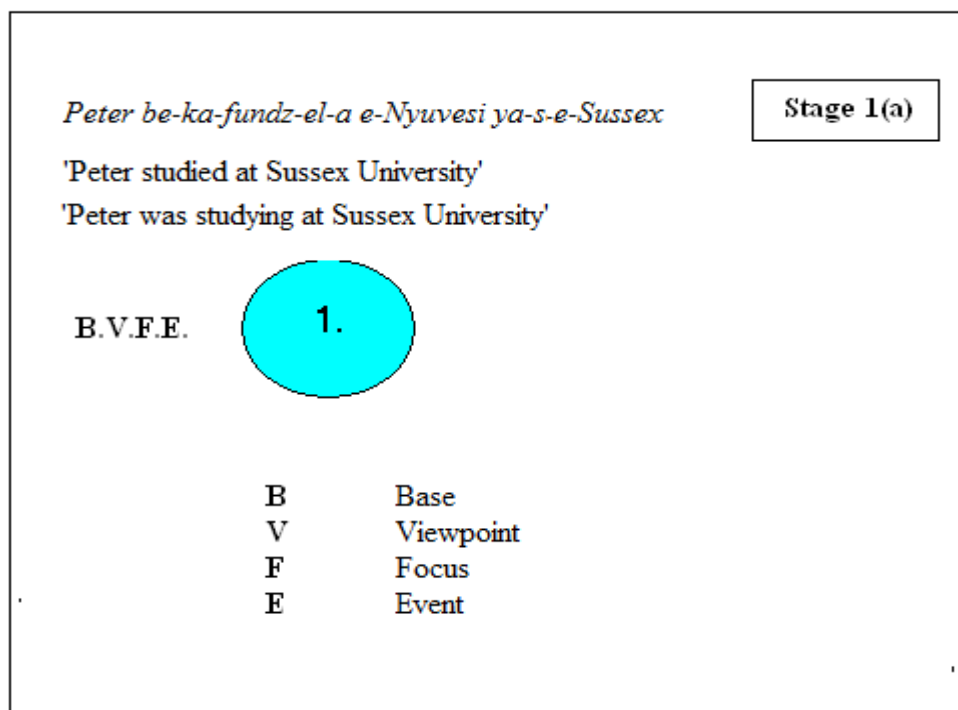


Fig. 8.14 Mental Spaces Example discourse Stage 1(a)

The opening sentence of the discourse establishes a new mental space in the mind of the listener and within this Base space are conceptualized Viewpoint, Focus and Event which are all shown located within MS1. The Base space represents the starting point of the discourse, where it is anchored and is the deictic centre. The Viewpoint is the space from which the discourse is viewed at any particular stage and is the anchor-point for tense-aspect categories. In this opening sentence the Viewpoint and Base space are the same. The Focus is the space where new information will be located and resides in the Base space as the discourse opens. The Event is the time at which the Event being described is taking place as indicated by the verb. In stage 1(a) the Event took place over a period at an unspecified time in the past and has no current relevance at this stage in the discourse. It is IMPERFECTIVE aspect which describes the internal temporal structure of a situation and contrasts with the PERFECTIVE. *Be-ka-fundz-el-a* encodes PAST tense and has no PERFECT marker.⁸³

⁸³ The applied predicate expresses an action which is carried out on behalf of someone or towards an object and can take two objects such as 'Peter studied linguistics at Sussex University' (Ziervogel and Mabuza, 1976: 188). In this case the meaning is linked to the locative indicating that studying took place at Sussex.

Stage 1 (b)

- (8.17) *kodvwa nyalo so-wu-fundz-el-a* ⁸⁴ *e-SOAS e-Landani*
 CONJ.but ADV.now ALT-SC1-study-APP-FV LOC-SOAS LOC-London

‘but he now studies at SOAS in London’

Nyalo and the ALTERNATIVE marker *-se-* together with the connective or conjunction *kodvwa* encode temporality and ALTERNATIVE aspect and make a semantic connection between studying at Sussex and SOAS and the effect can be seen in Figure 8.15.

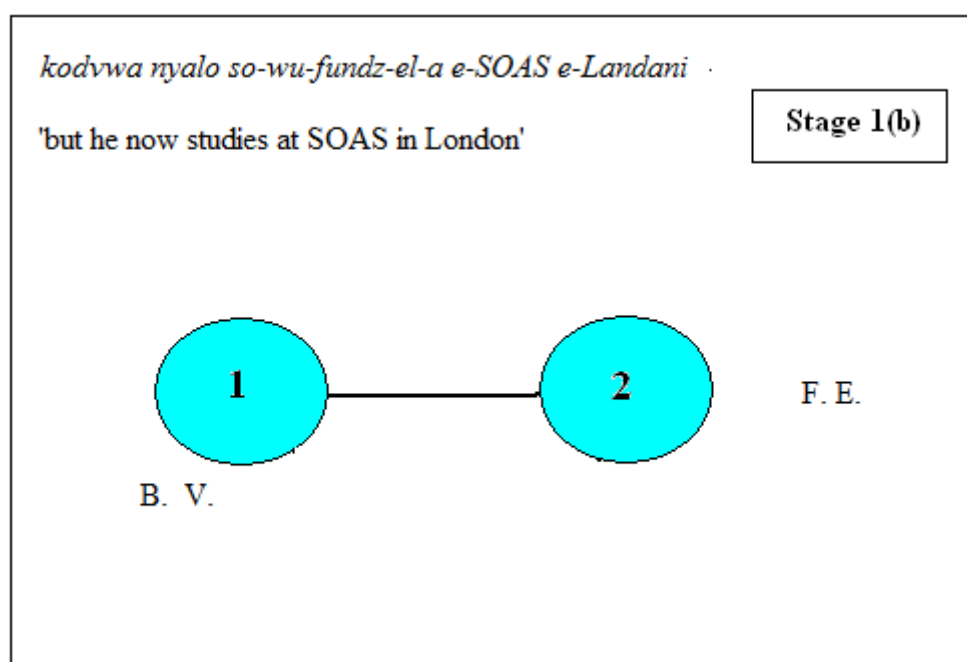


Fig. 8.15 Mental Spaces Example discourse Stage 1(b)

If the sentence had been simply *u-fundz-el-a e-SOAS e-Landani* (‘He studies at SOAS in London’) then it would have created a new Base space instead of relating back to Stage 1(a). The connection is also made by the presence of *kodvwa* (a connective) and *nyalo* which, as discussed in section 5.3, when appearing with *-se-* establishes a connection between two events. The fact that Peter now studies at SOAS connects the Viewpoint space in the listener’s temporal cognitive perception with the Base space and the subject’s earlier

⁸⁴ The class 1 subject concord *u-* becomes *wu-* when it follows a vowel as a result of insertion of /w/ glide and the ALTERNATIVE morpheme *-se-* appears as *-so-* before *(-w-)u-*. For more detailed morpho-phonological description see section 5.4.

time at Sussex. However the Focus is on the present event and so the new mental space (MS2) with Focus and Event is created in the evolving lattice.

Stage 2 (a)

(8.18) *A-be-solo* *a-ngu-m-fundzi*
 SC1-PAST-AUX.*still* SC1-COP.PFX-1-*student*

*we-te*⁸⁵ *lu-cwalingo*
 SC1-DEF.VB.*continue until* 11-*research*

‘While he was still a research student’

Lit: ‘He was still he was a student he continued with research’

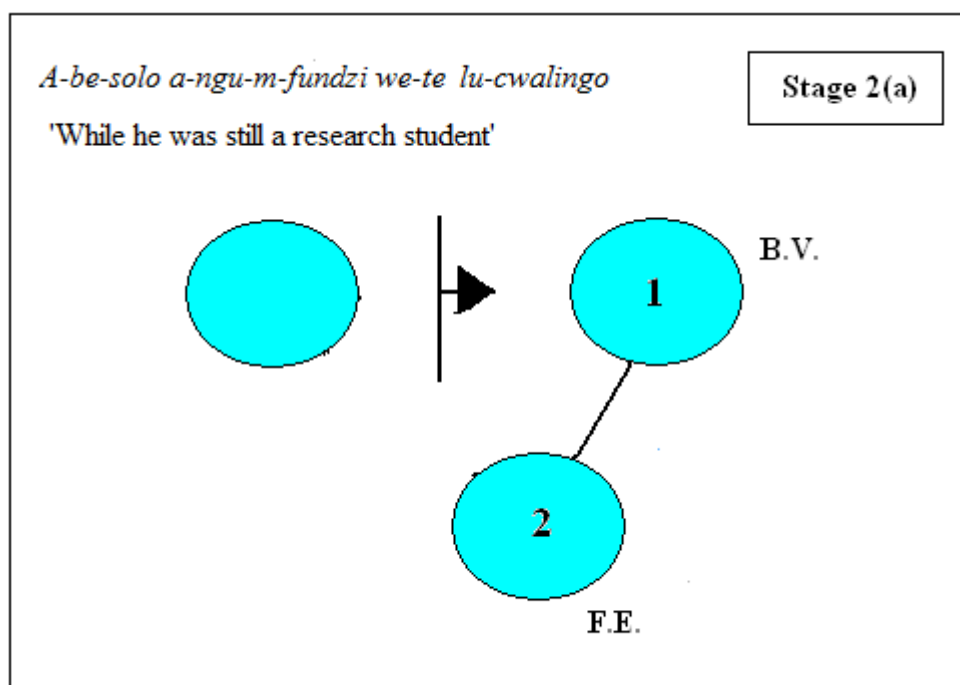


Fig. 8.16 Mental Space Example discourse stage 2(a).

The auxiliary *solo* indicates Persistivity and in this expression is preferred to *-sa-* which encodes PERSISTIVE aspect. However it may not be so straightforward and at this stage I consider what effect describing *solo* (which also means ‘since’) as an auxiliary or a conjunction has on the analysis. The status of *be-* (as tense marker or PERFECT auxiliary)

⁸⁵ This deficient verb is the PERFECT form of the motion verb *ku-ta* (‘to come’) which has a latent *i*. Before this vowel the class 1 subject concord *u-* becomes *wu-*. Coalescence between *u-* and *i-* results in the form seen.

depends on the function of *solo*, and together with *-te* all three are space builders. Example (8.19) is repeated from chapter four and illustrates *solo* in the role of conjunction:

- (8.19) *A-ka-sa-su-ye* *solo* *wa-buy-a*
 NEG-SC1-PERS-NEG.COP-AP1 CONJ.*since* REM.PAST.SC1-*return-FV*
- e-Jozi*
 LOC-*Johannesburg*
- ‘He has not been himself since returning from Johannesburg’
 (Ziervogel and Mabuza, 1976: 150)

Solo can also act as an auxiliary where it takes a subject concord and appears in the PARTICIPIAL and is followed by a lexical verb in that mood, as in (8.20) also from chapter four:

- (8.20) *A-solo* *a-gul-a*
 SC1-*still* SC1-*ill-FV*
- ‘He continues to be ill’ (Ziervogel and Mabuza, 1976: 123)

In (8.18) *solo* appears as an auxiliary and *be-* is a tense marker but in (8.21) *solo* appears as a conjunction, (see section 4.10 on *solo* and section 6.2 on *be-*) and *be-* is an auxiliary and so the allocation of Focus is affected:

- (8.21) *a-b-e* *solo* *a-ngu-m-fundzi*
 SC1-*be-FV* CONJ.*since* SC1-COP.PFX-1-*student*
- we-te* *lu-cwalingo*
 SC1-DEF.VB-*continue until* 11-*research*
- ‘while he was still a research student’

If this interpretation of (8.21) is accepted then the construction is ANTERIOR/PERFECT, which is a PAST tense/aspect hybrid with current relevance and so Focus diverges and does not move to a new mental space. Whether *solo* is an auxiliary or a conjunction, the general sense of the phrase remains the same, but if *solo* is an auxiliary then Focus (which does not diverge) will be on Peter as a research student (8.18) and if *solo* is a conjunction then Focus (which does diverge) will be on Peter at SOAS (8.21).

As Cutrer states, linguistic elements constrain possible meanings. The language input may under specify the space construction process, and hence, a given utterance may result in more than one space configuration (Cutrer, 1994: 21). The mental space lattice which is constructed to manage the discourse is not developed without prior knowledge so the listener may know that Peter only became a research student after arriving at SOAS. According to Cutrer mental space structures may be built as a result of pragmatic information, mapping from other domains, or as a result of inference or reasoning processes (Cutrer, 1994: 21).

For the remainder of this discourse we will assume that Peter became a research student while at SOAS and in future diagrams this interpretation will be adopted as represented in Figure 8.16. What this sentence is ‘about’ is Peter still being a research student which is encoded in *solo* and the non-verbal copula construction. Sentence (8.18) with *solo* as auxiliary and *be-* as tense marker is adopted and so the Focus moves to MS2 as shown in Figure 8.16. The Base space has also moved to what was MS2 and Peter’s previous studies at Sussex are no longer relevant to the discourse. As described in section 4.10 *solo* encodes Persistivity not PERSISTIVE aspect but in MST the effect is the same as there is still a linkage between MS2 and the Base space.

Stage 2 (b)

(8.22) *na-ka-y-a* *e-Swat-ini* *nge-n-yanga* *ye*
 ADV.PFX-SC1-go-FV LOC-Swaziland-LOC ADV.PFX-9-month PC9

Ndlovana *e-m-nyak-eni* *wa-2008*
 9.February LOC-3-year-LOC PC3-2008

‘he went to Swaziland in February 2008’

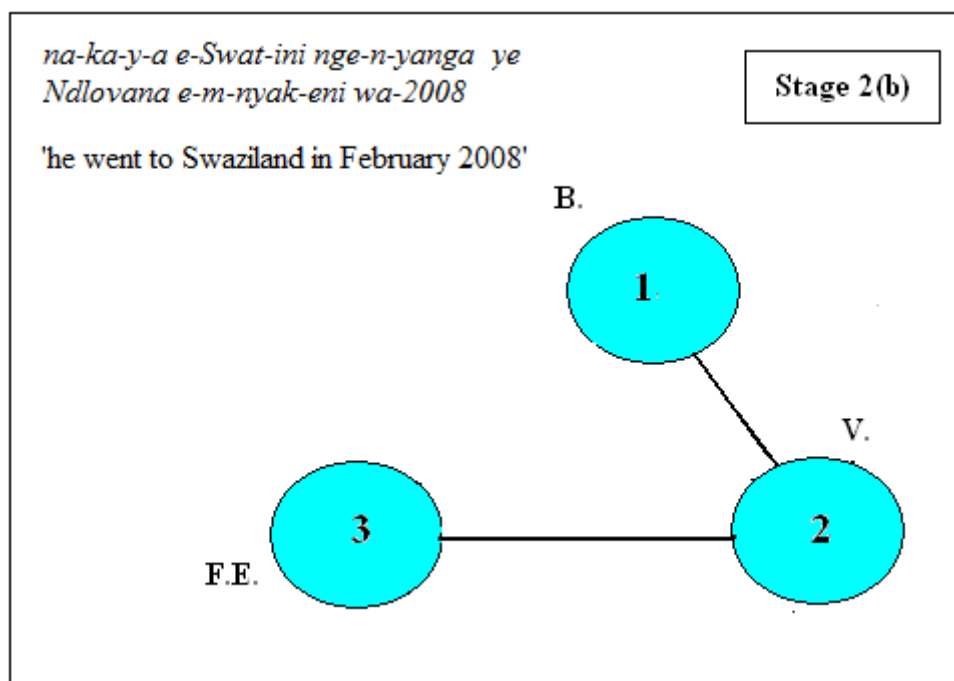


Fig. 8.17 Mental Space Example discourse stage 2(b)

In Figure 8.17 the Focus (which is the new content being Peter's journey to Swaziland) and the Event (which is PAST tense as indicated by the verb), move to MS3 and the Viewpoint now moves from the Base space to MS2 as the field trip was undertaken while a research student and studying at SOAS. The Focus is now his trip to Swaziland not his status as a research student at SOAS. The Base space is the new MS1 which is still anchoring the discourse and the space builders are PAST tense and *nge-n-yanga ye Ndlovana e-m-nyak-eni wa-2008* ('in February 2008').

Stage 3

(8.23) *Nga-September* *a-be-solo* *a-tsats-a*
 ADV.PFX-September SC1-PAST-AUX.still SC1-take-FV

*lw-ati*⁸⁶ *ku-ba-ntfu* *e-Mbabane*
 11-knowledge LOC-2-people LOC-Mbabane

'By September he was still collecting data in Mbabane'

⁸⁶ With noun class 11 *lu-* before the vowel *a-* there is insertion of /w/ glide.

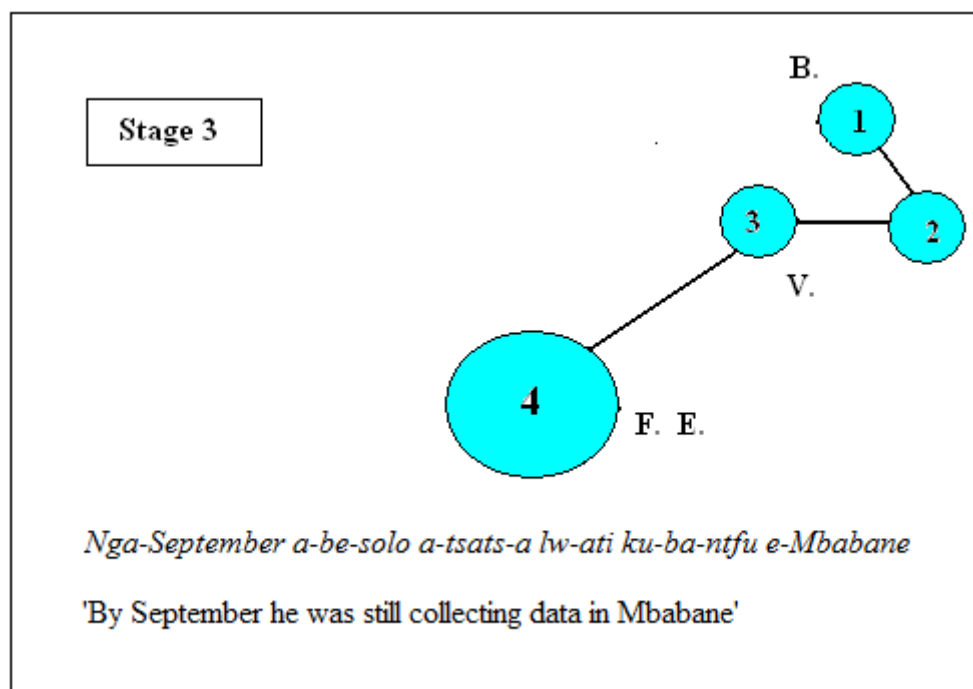


Fig. 8.18 Mental Space Example discourse stage 3

The Focus and Event have moved to MS4 because this sentence is 'about' collecting data in Mbabane.⁸⁷ The auxiliary *solo* indicates Persistivity and maintains the link with MS3 where the Viewpoint is located. When Peter travelled to Swaziland the Viewpoint shifted from London to Mbabane and the Base space remained at MS1. The Event is the PAST compound verb form *a-be-solo a-tsats-a* and Focus is on data collection during September because the verb is not PERFECT (*solo* is again an auxiliary as in example (8.18) above) but IMPERFECTIVE so the data collecting is unbounded, i.e. we do not know when it started and when it will finish, only that it started after February and continues. Hence the Focus moves to the new MS4 as shown in Figure 8.18. The space builders are PAST tense, *nga-September* ('in September') and the auxiliary *solo* which indicates Persistivity and makes the connection with the arrival in Swaziland when Peter started collecting data.

⁸⁷ I have reduced MS1-3 to accommodate the growing discourse.

Stage 4

(8.24) *A-be-sa-hlal-a* *na-Thandekile* *e-Sidwashini*⁸⁸
 SC1-PAST-ALT-stay-FV ADV.PFX-Thandekile LOC-Sidwashini

tin-yanga *leti-sikhombisa*
 10-month RC10-seven

'He was now staying with Thandekile in Sidwashini for seven months'

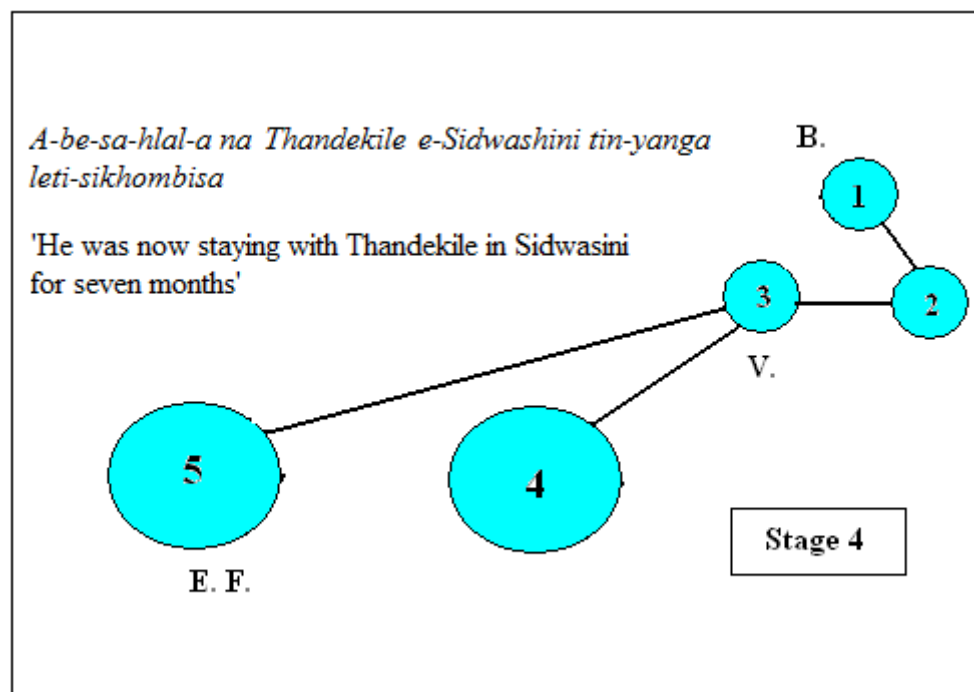


Fig. 8.19 Mental Space Example discourse stage 4.

The compound tense is absolute IMPERFECTIVE PAST with *be-* and so Focus shifts together with the Event to newly created MS5. MS3 is the space created upon Peter's arrival in Swaziland in February and his seven month stay in Sidwashini is seen from the perspective of his initial arrival in the country (Viewpoint). Event is located at MS5 as indicated by the verb and the Focus is located in that space because staying at Sidwashini with Thandekile is new content in the discourse. The expression in stage 4 is ALTERATIVE so *sa-* does not encode temporality (reference to Speech time or present which is the deictic centre from the speaker's point of view) as this is PAST tense. It refers to the activity switch (staying in

⁸⁸ The locative expression *e-Sidwashini* is shown as it is because the locative suffix through usage has become part of the place name. The construction is strictly *e-si-dwash-ini*. *Si-dwashini* is a type of dress material (khaki) of German import which was presumably sold at the location. This is the case with most place names i.e. *Manzini* < *e-ma-nt-ini* ('at/to the water') and *Durban/Thekwini*, < *e-thek-w-ini* ('at/to the bay').

Sidwashini) which was not being done prior to the arrival in Swaziland in February. With the absolute PAST tense used the speaker looks forward from February to the present so Focus is located at MS5 as shown in the diagram. The space builders are the ALTERATIVE aspect marker *-se-* appearing as *-sa-*, PAST tense and *tin-yanga leti-sikhombisa* ('seven months') which establish the connection between MS5 and MS3.

Stage 5(a)

(8.25) *E-ku-buy-el-eni* *kw-akhe* *e-Landani*
 LOC-15-return-APP-LOC PC15-PS1 LOC-London
 'On his return to London'

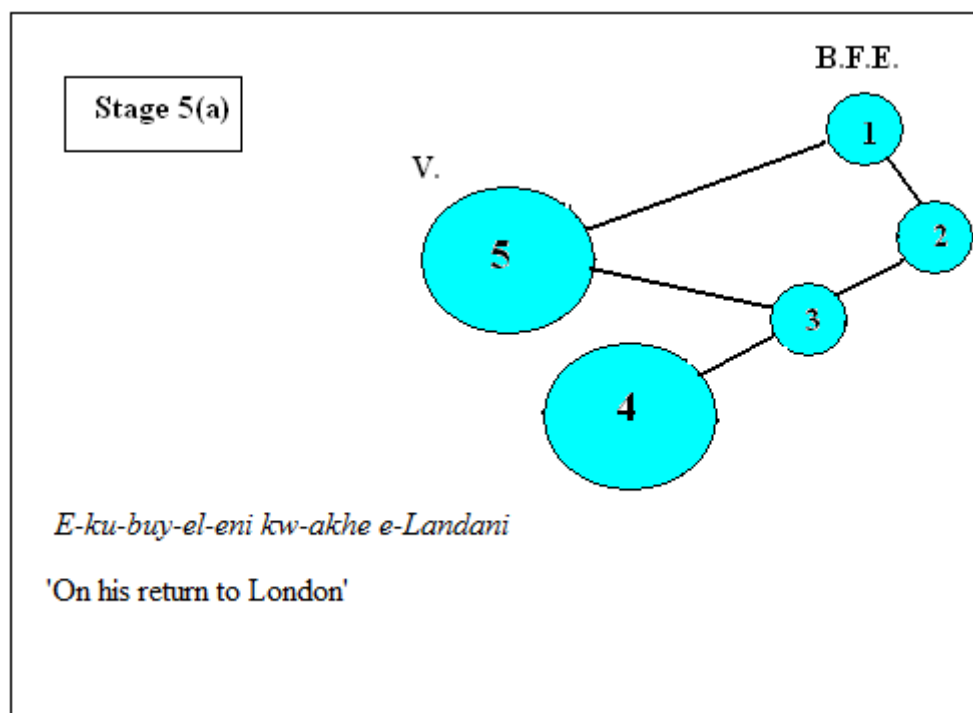


Fig. 8.20 Mental Space Example discourse stage 5(a).

In Figure 8.20 the discourse is almost completed as the Focus and Event return to the deictic centre, the Base space at MS1. The discourse was launched from MS1 (Peter was a research student at SOAS in London to where he now returns). The first field trip to Swaziland was cognitively represented in the three linked spaces MS3-5. However stage 5(a) needs to keep the mental space lattice that has been constructed cognitively relevant as the Viewpoint remains at MS5. The discourse will continue to be managed within this lattice until the Base space is regained by Viewpoint, Focus and Event, at which point the

discourse will be terminated if a new discourse is instigated. Although a verbal construction has been used, it is non-finite and locative so there is no finite verb, no tense and there is no new Event requiring a new mental space so the discourse returns to Base. The use of the verb *ku-buy-a* ('to return') would normally act as an indicator that the discourse is close to reaching a conclusion, but a returning situation links the temporal point of departure (MS5) to the point of arrival (MS1). A further expression would 'sign off' the discourse, but this is not forthcoming in stage 5(b). Space builders require the hearer to establish a scenario beyond the 'here and now' (Evans and Green, 2006: 371) which implies that they can be spatial as well as temporal. The space builders in this expression are the two locative constructions, *e-ku-buy-el-eni* ('on returning to') *e-Landani* ('to London'), together with the sense of the motion verb *ku-buy-el-a* ('to return to') which establish connectors between MS5 and both MS3 and MS1.

Stage 5 (b)

- (8.26) *um-sebenti* *w-akhe* *bo-wu-nga-ka-phel-el-i* ⁸⁹
 3-work PC3-PS1 PAST-SC3-NEG-NEG.PERF-*finish*-APP-NEG.FV
 'his work had not yet finished'

⁸⁹ In (8.26) the PAST prefix *be-* becomes *bo-* before the third person singular subject concord *wu-* which itself has changed from *u-* with the insertion of /w/ glide to avoid the vowel hiatus. For a more detailed morpho-phonological analysis see section 5.4. The PLUPERFECT tense is encoded by the PAST prefix *bo-* and the PERFECT marker *-ka-*.

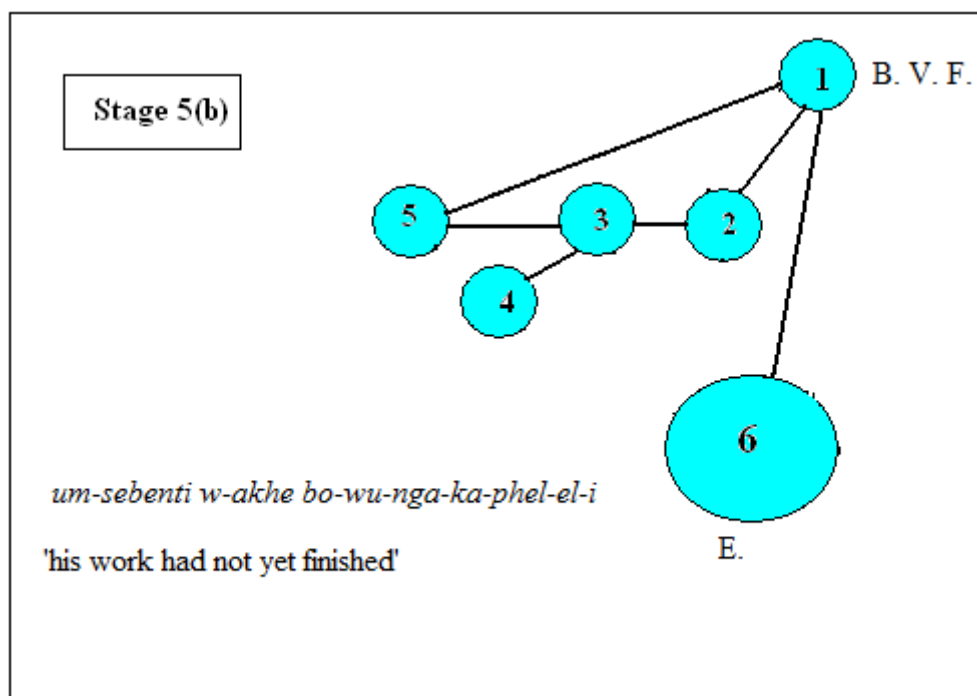


Fig. 8.21 Mental Space Example discourse stage 5(b).

The discourse covering stages 1 through to 5(a) are still extant because of the effect of stage 5(b). The Event is linked to MS1 as this space was created to represent the research that was being undertaken as a student at SOAS in London. So MS6 which represents its non-completion is linked by the use of a PERFECT construction which in this expression has the negative ALTERNATIVE Exclusivity sub-sense ('not yet'). This means that the tense has current relevance and the Focus does not move with Event to the new space but they diverge and Focus remains at the Base space. The Viewpoint is now back in the Base space, the deictic centre for this discourse, as Peter is now again at SOAS in London with his research work uncompleted. The negative ALTERNATIVE Exclusivity sub-sense is normally encoded by the construction *se-nga-ka* but the negative PERFECT can also encode this aspect as described in section 5.5.1. Had this construction been used it would have been the space builder but in (8.26) it is the two markers acting jointly, *-nga-* (negative) and *-ka-* (EXCLUSIVE PERFECT) which undertake the role.

Stage 6(a)

(8.27) *Nge-n-yanga* *ya* *Mabasa* *e-m-nyak-eni* *wa-2009*
 ADV.PFX-9-month PC9 1a.April LOC-3-year-LOC PC-2009

wa-buy-el-a *e-Swat-ini*
 REM.PAST.SC1-return-APP-FV LOC-Swaziland-LOC

'In April 2009 he returned to Swaziland'

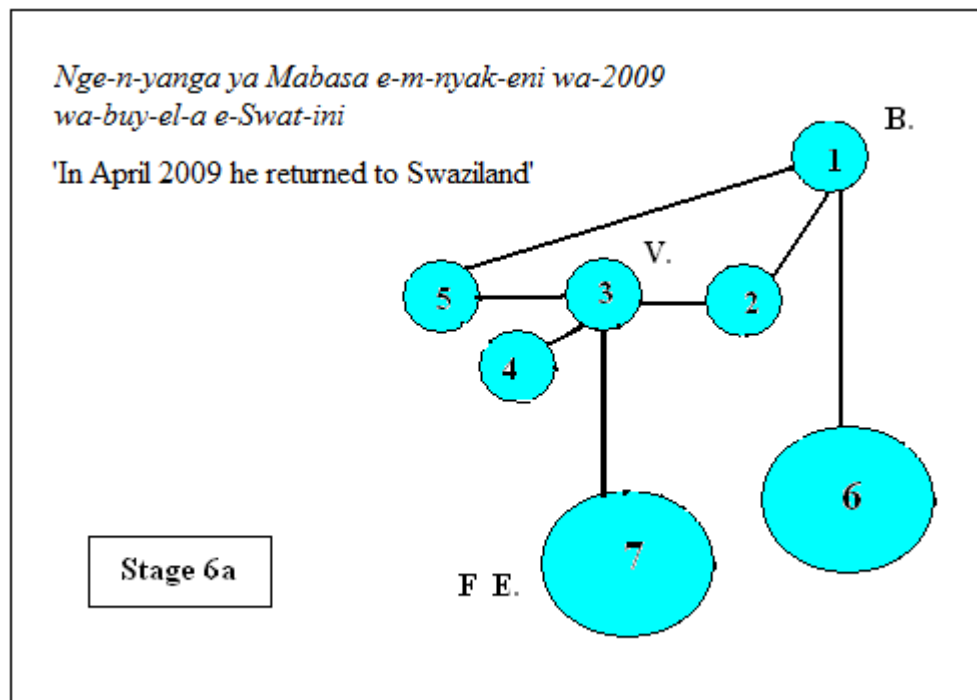


Fig. 8.22 Mental Space Example discourse stage 6(a).

In Figure 8.22 the discourse is following its earlier path. MS6 is linked to MS1 by non-completion of the research work and similarly MS7 is linked to the first field trip represented by MS3. The Focus and Event are reunited at MS7 which represents the new content and the time indicated by the PAST tense of the verb. The verb *ku-buy-el-a* ('to return for/to') with its applied extension, has the effect of linking this trip to the original journey (MS3) but also the whole of the existing lattice by means of the *-el-* extension which encodes the direction of travel (to Swaziland) as evidenced by the locative prefix (Taljaard et al., 1991: 67). However the Viewpoint is located at MS3 to show that the attention of the listener is primarily on travel rather than work. The temporal space builders are PAST tense and *nge-n-yanga ya Mabasa e-m-nyak-eni wa-2009* ('in April 2009') and

the spatial space builders are once again the verb *ku-buy-el-a* ('to return to') together with the locative construction *e-Swat-ini*.

Stage 6 (b)

- (8.28) *wa-tfol-a* *Thandekile* *solo* *a-hlal-a*
 REM.PAST.SC1-find-FV 1a.Thandekile CONJ.still SC1-stay-FV

e-Sidwashini
 LOC-Sidwashini

'he found Thandekile still living in Sidwashini'

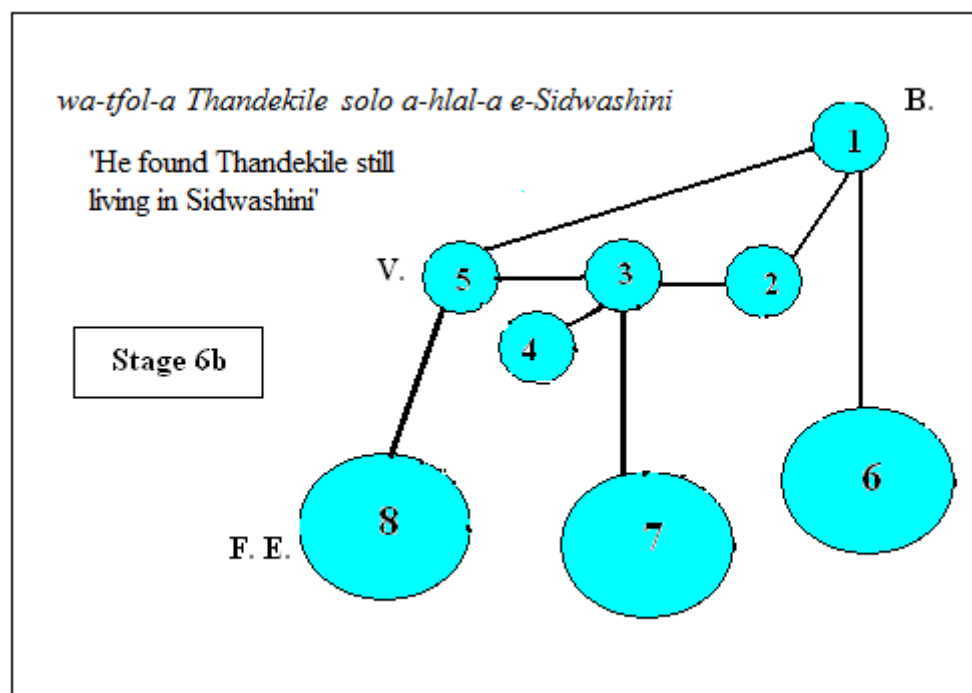


Fig. 8.23 Mental Space Example discourse stage 6(b).

Event and Focus shift to MS8 where the new content and the time of the Event are located. The Viewpoint shifts from MS3 to MS5 because this expression is about Thandekile still living in Sidwashini. Although this is *solo* (which is a space builder) indicating Persistivity and not *-sa-* encoding PERSISTIVE on this occasion two separate time periods are linked i.e. the first field trip and the current one, in both of which Thandekile is living in Sidwashini. The choice of *solo* or *-sa-* is explored in section 4.10. The finite REMOTE PAST verb with

class 1 subject concord is also a space builder and is followed by a subsequent verb in the PARTICIPIAL or SITUATIVE mood.

Stage 7(a)

- (8.29) *A-be-nga-sa-but-i* *imi-buto* *ku-ba-ntfu*
 SC1-PAST-NEG-ALT-ask-NEG.FV 4-questions LOC-2-people
 'He was no longer recording interviews'
 Lit: 'He was no longer asking questions to people'

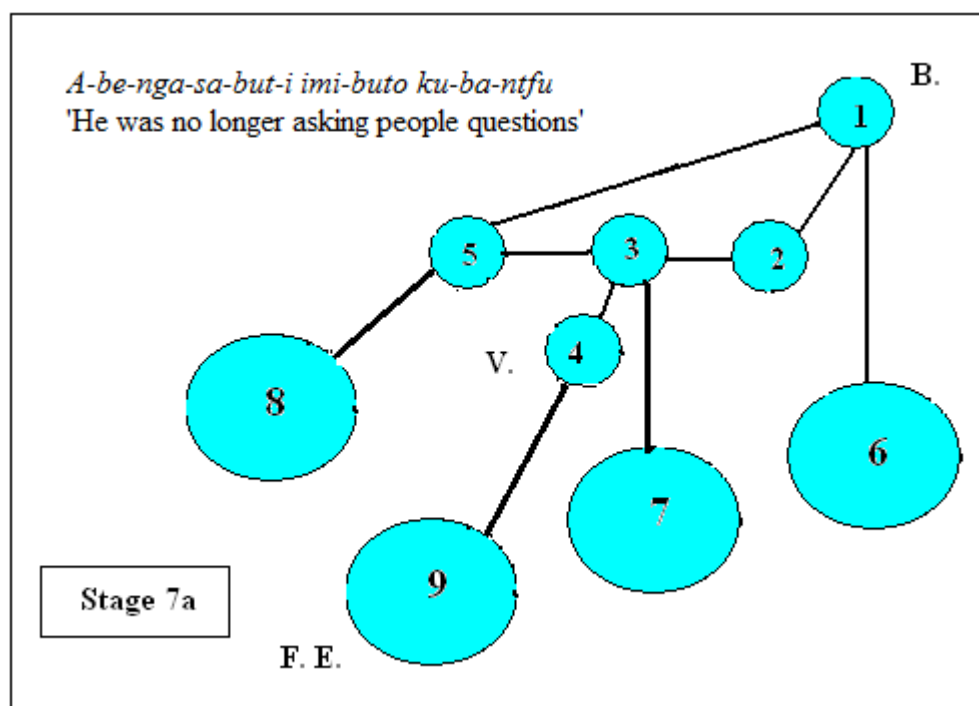


Fig. 8.24 Mental Space Example discourse stage 7(a)

Focus and Event move together to the new mental space MS9 where there is new content (not recording interviews) and the time of the event is as indicated by the verb's PAST tense. The PAST tense and the aspect marker encode ALTERNATIVE which in this case encodes a switch of polarity. Formerly Peter was recording the interviews (MS4) but now he has discontinued them (MS9). The ALTERNATIVE aspect shifts the Viewpoint to what was being done previously, so MS4 is now the locus of the Viewpoint as this was the mental space created when the data was being recorded on the first field trip. The ALTERNATIVE marker together with the negative marker *-nga-* and the negative suffix *-i* combine to encode negative ALTERNATIVE aspect which is the space builder. However, it is the

dual-time period aspect marker *-se-* (appearing as *-sa-*) which connects the two mental spaces and the negative markers alone cannot perform this role.

Stage 7(b)

(8.30) *kodvwa* *a-be-tsats-is-a* *ne-tin-goni*
 CONJ.but SC1-PAST-consult-CAUS-FV ADV.PFX-10-holders

te-lw-ati
 PC10-11-knowledge

‘but he was consulting with informants’

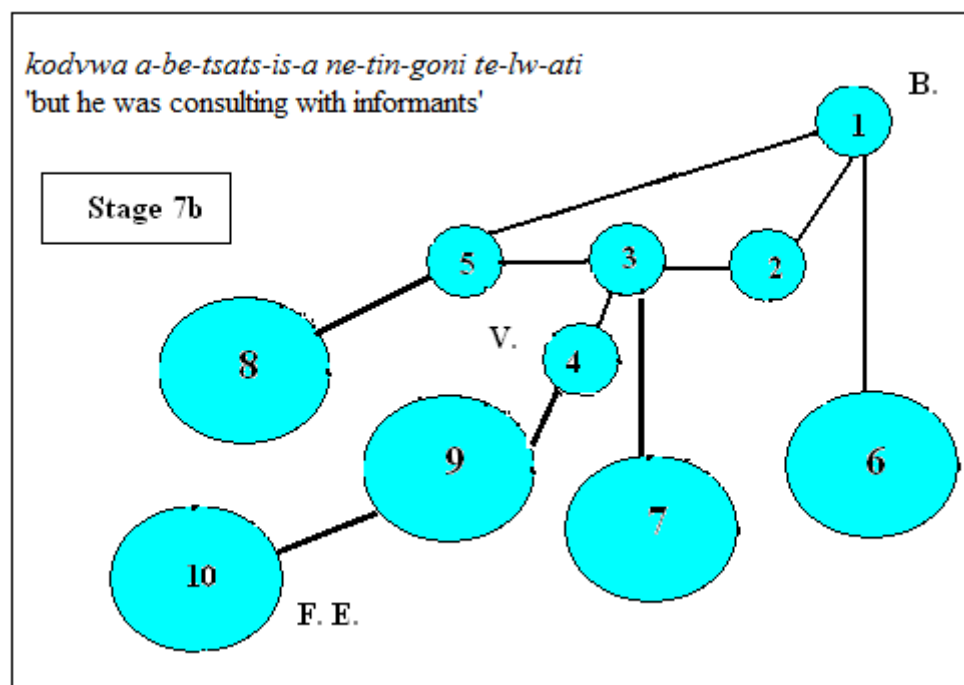


Fig. 8.25 Mental Space Example discourse stage 7(b)

The Viewpoint remains at MS4 because the new content is still about collecting data. The Event and Focus are located in MS10 which represents the new situation in terms of content and time of action. The example indicates Alterativity, but the aspectuality of this stage 7(b) is interesting. The sense of this expression is derived partly from the previous stage where the negative ALTERNATIVE in stage 7(a) has the effect of entailing that this is now a change of activity from recording to consulting. There is not a morphological strategy employed but a lexical one with the conjunction *kodvwa* (‘but’). This has important

implications for the way MST accommodates aspectuality and the PERSISTIVE and ALTERATIVE aspects in particular. The evolving matrix reflects the history of the discourse and determines the deployment of Viewpoint and Focus and can reflect the semanticity of dual-time period aspects. The space builders are therefore the connective and conjunction *kodvwa* which establishes MS10 and links it to MS9 and PAST tense.

In (8.30) the sense of *kodvwa* ('but') is not as described in section 8.2 which was a marker for a counter-expectational interpretation, it is a conjunction semantically linking two sentences which does not create a Belief space and so the Optimization Principle is not blocked. The conjunction *kodvwa* acting as a space builder establishes a new space (MS10) and the access principle allows the connectors to link the relevant elements e.g. *ba-ntfu* and *ti-ngoni te-lw-ati*. Examples (8.31) and (8.32) illustrate a sentence in which the semantic effect of *ngoba* ('because') would have created a counter-expectational sense:

- (8.31) *Be-ka-cabang-a* *kutsi* *le-n-dvuna* *i-ngu-m-Zulu*
 PAST-SC1-think-FV CONJ.that DP9-9-headman SC9-COP.PFX-1-Zulu
- ngako-ke* *a-ka-lung-i* *kutsi* *a-b-e*
 CONJ.therefore-ENCL NEG-SC1-alright-NEG.FV CONJ.that SC1-be-FV
- yi* *im-pimbi*⁹⁰
 COP.9 9-informer

'He thought the headman was Zulu so was not eligible to be an informant'

- (8.32) *ngoba* *u-li-Swati*
 CONJ.because SC1-5-Swati
 'but he was a Swazi'

In this case the Optimization Principle would block the creation of a new Belief space and thus avoid a connector linking the potential informant as being thought to be both Zulu and Swazi.

⁹⁰ My consultant has misunderstood the intended sense of informant in (8.31); compare with (8.30) *tin-goni te-lw-ati* ('holders of knowledge') which is the correct interpretation. It is interesting but not material to the representation of the discourse.

Stage 8.0

(8.33) *Nyalo* *se-wu-buy-el-e* *e-Landani*
 ADV.now ALT-SC1-return-APP-PERF.FV LOC-London

ne-mi-bhalo *ye-s-andla*
 ADV.PFX-4-notes PC4-7-hand

‘Now he has returned to London with his hand-written notes’

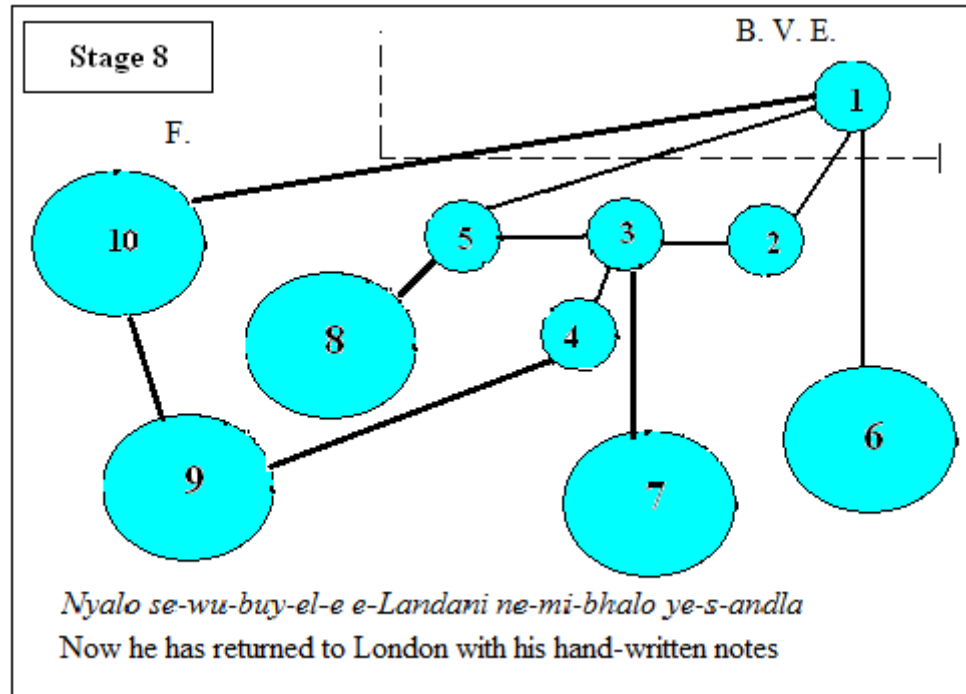


Fig. 8.26 Mental Space Example discourse stage 8

The temporal adverb *nyalo* (‘now’) indicates temporality and the aspect marker *-se-* encodes the ALTERNATIVE but see section 5.3 on the semantics of *nyalo* alone and with the morpheme *-se-* for a detailed analysis describing how together *-se-* and *nyalo* (which are the space builders at this stage) encode connectedness. The return to London with written data is construed as a direct result of the fieldwork trip as the PERFECT tense describes a past event with current relevance so Focus and Event diverge with Focus remaining in MS10 and consequently the discourse is not yet brought to a close. The temporal space builders are *nyalo*, PERFECT tense and the ALTERNATIVE marker *-se-* with a spatial space builder encoded in the locative *e-Landani*. In section 5.2.1 the altered state sense of the

ALTERATIVE was described, and in this expression *-se-* and the STATIVE PERFECT encode this sense, Peter had not returned to London but now he has.

Stage 9.0

(8.34) *lapha* *a-sa-vele* *a-chubek-a*⁹¹
 ADV.*where* SC1-ALT-DEF.VB.*indeed* SC1-*continue*-FV

khona *ne-lu-bhalo* *lw-akhe*
 ADV.*there* ADV.PFX-11-*thesis* PC11-PS1

‘where he is already continuing with his thesis’

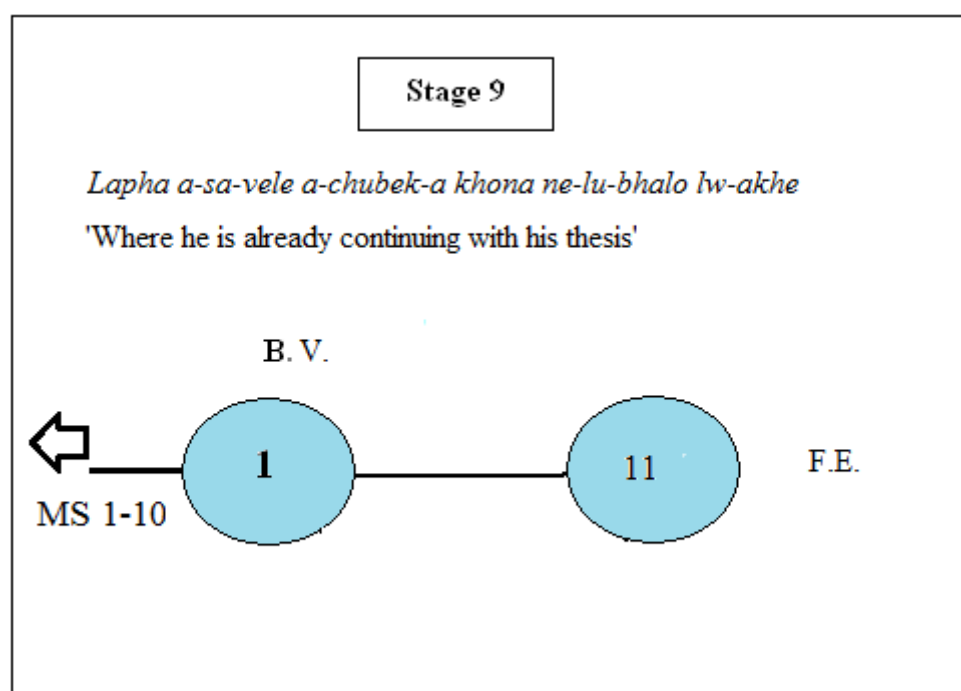


Fig. 8.27 Mental Space Example discourse stage 9

Sentence (8.34) brings Focus and Event back together in MS11 as *vele* is an auxiliary (Ziervogel and Mabuza, 1976: 160) or a deficient verb (Rycroft, 1981: 105) not PERFECT but the lattice is not yet dismantled as the elements other than Viewpoint have not returned to the Base space. The verb *ku-chubek-a* (‘to continue’) indicates Persistivity (*Aktionsart*) and connects the current studies with those that went before (two separate time periods

⁹¹ The use of *ku-chubek-a* is interesting here as this verb can encode ‘strong’ Persistivity. It is in PARTICIPIAL mood following deficient verb *-vele*. The situation of still writing his thesis may be expressed by *-sa-* (‘weak’) or *ku-chubek-a* (‘strong’) depending on speaker perceptions.

which are necessary to indicate Persistivity). ALTERATIVE and Persistivity can co-occur when they reference multiple or sequential events as they do in this expression whereby *-se-* appearing as *-sa-* with the deficient verb (*-vele*) (see section 5.5.1) encodes the Exclusivity sub-sense ('already'). The ALTERATIVE Exclusivity sub-sense, being a dual-time period aspect, refers to the time of arrival when work on the thesis had not recommenced and the time when it had. Persistivity is indicated by the verb *ku-chubek-a* ('to continue') and refers to the work itself. In this expression there are four space builders. *Lapha* and *khona* are spatial space builders establishing the new mental space in London and *-sa-* is a temporal space builder which establishes and connects the new MS11 with the lattice and there is the deficient verb (*-vele*) and subsequent verb in PARTICIPIAL mood (*a-chubek-a*). This final stage reveals an issue that Mental Spaces Theory has with dual-time period aspects like the PERSISTIVE and the ALTERATIVE which I now discuss.

This has been a complex discourse and possibly at the mid-point the lattice could have been terminated resulting in two shorter hierarchical networks but I deliberately did not do this because the objective of the example discourse was to illustrate how the PERSISTIVE and ALTERATIVE aspects can be represented using MST. What these two aspects have in common in their negative and positive forms is that they link two time periods so there is relation back to a prior point in time where either the same or a different activity is taking place or not. This means that within MST the Viewpoint must link the two spaces which cognitively represent those two time-separated acts and which together constitute the particular aspect. The reason for not dividing this discourse was to enable these links to be made. Both markers *-sa-* and *-se-* are space builders and their role is twofold compared with other space builders because they not only establish the new mental space but link it to an anterior one. Temporal adverbs such as *solo* and *ekugcineni* also perform this dual role when indicating Persistivity or Alterativity.

It is unlikely that there comes a stage when a lattice is so large and complex that it is no longer psychologically plausible for it to be cognitively retained by the listener and for connections to be made between separate time points. Possibly psycholinguistic tests could be devised to establish whether or not there is such a limit and whether it is language specific or varies with individual discourse participants and these are interesting issues but what does concern this analysis is how to depict in the representational lattice, mental

spaces which can be widely separated in time. If discourses are on-line and periodically start afresh then invariably these dual-time period aspects will not always be able to link with their partner spaces because the anterior event is part of a prior discourse. Cutrer says spaces will be pragmatically elaborated from background knowledge packaged in the form of frames and Idealized Cognitive Models (Cutrer, 1994: 49) and I have stated that listeners must apply prior knowledge in their interpretation of the discourse in which they are involved. However this would not solve the problem of dual-time period aspects if the anterior space is no longer available in the current lattice resulting in ‘hanging’ PERSISTIVES and ALTERATIVES with no anterior link.

- (8.35) *U-sa-dadish-a* *siSwati?*
 SC2sg-PERS-study-FV 7-Swati
 ‘You are still studying siSwati?’

The PERSISTIVE aspect encoded by *-sa-* in (8.35) related back to my previous field trip five months earlier and so Viewpoint is located in the Base space at the present Speech time and deictic centre but there is the question of where should the other temporal primitives reside? Focus and Event will be situated in the new anterior space as the new content and the tense indicated by the verb are clear. Two spaces are opened as the Base space must be MS1 being the deictic centre of both participants at the time of the question i.e. contemporaneous (present) and in Swaziland (here). So Viewpoint resides in MS1 (the Base space) and Focus and Event are in MS2 which establishes a link back to the previous fieldwork visit five months earlier.

The issue similarly arises with dual-time period tenses such as the PERFECT where the Event is located in an anterior mental space as it would be pragmatically unusual to open a sentence ‘I have studied siSwati’ as a listener would rightly think ‘so what?’ To be semantically acceptable the link between the two spaces is necessarily contained within a discourse:

- (8.36) Q1 *U-ye-v-a* ⁹² *ngi-ya-kulum-a-ni?*
 SC2sg-DIS.PRES-understand-FV SC1sg-DIS.PRES-speak-FV-INTRG
 ‘You understand what I am saying?’

⁹² The disjoint present morpheme appears as *-ye-* not *-ya-* because the monosyllabic verb *ku-va* has a latent *i* which with coalescence results in *-ya-* + *-i-* = *-ye-*

A1	(<i>Yebo</i>)	<i>ngi-si-fundz-e</i>	<i>si-Swati</i>
	(INTERJ.yes)	SC1-OC7-study-PERF.FV	7-Swati
	'(Yes) I have studied siSwati'		

Both participants must understand how the PERFECT tense is relevant to the current discourse for its use to be justified. The Viewpoint is located in the Base space which is the deictic centre at Speech time and is created by the statement (A1) and there is also a mental space created to represent the earlier time period when the speaker studied siSwati and Event is located in that new anterior space having diverged from Focus which remains in the Base space because of the current relevance. Q1 need not be articulated, it could be a raised eyebrow, but as both Fauconnier and Cutrer claim; mental spaces are independent of language which is a superficial manifestation of the underlying highly abstract cognitive constructions (Cutrer, 1994: 48, Fauconnier, 1985).

8.4 Summary

In this chapter I have provided both a description of one of the two major theoretical perspectives adopted by this analysis and an illustration of how it can be practically applied to the data gathered during my fieldwork. The detailed discourse specifically focused on the issues with which this analysis is concerned namely an understanding of PERSISTIVE and ALTERATIVE aspects in siSwati and the model was employed in particular to investigate the function of these aspects in a wider discourse setting. This was followed by an evaluation of the theory's explanatory power concerning the representation of dual-time period aspects. The theory did not exhibit any serious difficulties with representing such aspects, and what is clear from this chapter is that whilst the theory's ability to represent tense and aspect in siSwati temporal cognition is recognised, its explanatory power, especially with regard to dual-time period aspects, and the role of the ALTERATIVE and PERSISTIVE markers as space builders, is also significant.

In the above discourse, *be-* has encoded IMPERFECTIVE aspect and various examples have illustrated that it can act as a PAST tense marker and auxiliary and it is in these roles that it acts as a space builder. Although its role in encoding INCEPTIVE aspect was not featured in the above discourse, in the next chapter there are several examples where *be-* encodes

INCEPTIVE aspect and acts as a connecting space builder between cognitive domains which are the equivalent of mental spaces in B&K's cognitive model.

Another feature which emerged was the role of conjunctions or connectives such as *kodvwa* ('but') which have been regarded as simply space builders but it seems clear that they also act in a similar way to dual-time period aspect markers and not only establish a new mental space but can link with an anterior one. Because with a conjunction like *kodvwa* the mental spaces are contiguous this has not formerly been apparent and an analysis of cross-linguistic space builders may well reveal other such interesting features. This analysis also looked at the role of *kodvwa* in encoding counter-expectational constructions.

As mentioned above the next chapter looks at Botne and Kershner's cognitive model for analysing Bantu TAM systems.

9. The analytical application of Botne and Kershner's cognitive model of Bantu TAM systems

9.1 Introduction

This chapter consists of three distinct parts. The first looks at the EGO-centred and Temporal Sequence cognitive models of time and the second consists of a theoretical description of the functionality of Botne and Kershner's (B&K) model. The third part applies the model to my fieldwork data by analysing how the PERSISTIVE and ALTERATIVE markers *-sa-* and *-se-* and the PAST tense and IMPERFECTIVE aspect marker and auxiliary *be-* are represented in the model. The model is also applied to an analysis of the absolute and relative tenses, with the objective of identifying and explaining the nature and functionality of their tense and aspect markers.

In the first part I review the EGO-centred cognitive models for time and the Temporal Sequence model which serve as an introduction to Botne and Kershner's more complex cognitive linguistic model for the analysis of Bantu TAM systems. Evans identified two types of cognitive models of time (Evans, 2004: 214, 219 & 229), (1) EGO-centred models, [MOVING EGO] and [MOVING TIME] and (2) a Time-based model [TEMPORAL SEQUENCE]. These cognitive temporal models had been described previously but Evans introduced innovations which expanded the understanding of temporal cognition, such as lexical and temporal concepts which built on the work of cognitive linguists in the field of Conceptual Metaphor Theory (CMT) (Lakoff and Johnson, 1980, Fauconnier and Turner, 2002, Turner and Fauconnier, 2000). Any individual language may not rely exclusively on one model and for example, English and siSwati use all three, although in siSwati a tendency to display a preference for one of the two EGO-based models has been tentatively identified (Nichols, 2006). Finally there are variations of the individual models which have been identified amongst certain languages.⁹³ The first part concludes with a sub-section which looks at cognitive models and the grammaticalization of FUTURE markers.

⁹³ Hausa is a particularly interesting case and readers interested in a detailed description of temporal cognition in that language are referred to Hill's work and Radden's cognitive linguistic analysis (Hill, 1978, Radden, 1997).

In the theoretically descriptive second part, B&K's model is considered in respect of several Bantu languages in addition to siSwati. The tertiary timeline model is analysed followed by a consideration of the importance of contextualised data and how B&K's approach complements and contrasts with Mental Spaces Theory (MST).

In the third part I apply B&K's cognitive model of Bantu TAM systems to my fieldwork data, using it as an analytical tool to describe various situations in siSwati. Their model incorporates cognitive domains, Privileged (P-domain) and Dissociated (D-domain), and multiple timelines which represent temporal cognitive models termed [EGO MOVING], [MOVING EGO] and [MOVING EVENT] which are similar to those which are described in the introductory first part of this chapter. Theirs is a deictic approach and as it is discourse-based it connects with and complements MST which is particularly effective as a means of representing the respective temporal and aspectual situations and phenomena identified by my research data. The tertiary timelines of the B&K model have considerable explanatory power in depicting the dual-time period aspects as do the Privileged and Dissociated domains, which are cognitive or mental spaces constructed by space builders such as the grammaticalized markers of the ALTERATIVE, PERSISTIVE and INCEPTIVE aspects.

This chapter is organised as follows. The first part commences with section 9.2 and describes the EGO-centred and time-based cognitive models of time. Sections 9.2.1 to 9.2.3 describe cognitive models of [MOVING TIME], [MOVING EGO] and [TEMPORAL SEQUENCE] respectively, as they operate in English. Section 9.3 looks at these cognitive models as they operate within the siSwati TAM system and a sub-section considers cognitive models and the grammaticalization of FUTURE markers.

The second part consists of an overview of the theoretical principles underlying B&K's model: Section 9.4 is an analysis of B&K's cognitive linguistics approach and describes their cognitive model for analysing Bantu TAM systems. There are two sub-sections dealing with aspectuality in the Privileged and Dissociated domains and the Organising Principles are applied in a case study of Nugunu. Section 9.5 considers the practical application of the model to the siSwati TAM system.

The third part is a practical application of the model to the research data gathered during fieldwork or from the standard grammars: Section 9.6 is a review of B&K's model as an analytical tool which is divided into five sub-sections dealing with the conjunction and auxiliary *solo*, greetings and responses, PERFECT tense/aspect, FUTURE tenses and counter-expectational constructions.

9.2 Ego-centred and time-based cognitive models for time

These temporal models are shaped by spatial, particularly motion concepts as described in CMT and as Moore asserts the conceptual metaphor [TIME IS THE MOTION OF OBJECTS] is reflected in the [MOVING TIME] model and [TIME IS MOTION ALONG A PATH] is reflected in the [MOVING EGO] model (Moore, 2000). There are three main models: [MOVING TIME], [MOVING EGO] and [TEMPORAL SEQUENCE] and I shall give a brief description of each.

9.2.1 Cognitive model for [MOVING TIME] (English)

One of Evans' principal aims in his work was an investigation into the polysemy of time as a lexical concept, effectively an investigation into the structure of time, as cognitively conceptualized and linguistically expressed (Evans, 2004). Having identified eight lexical concepts for time (four primary senses termed Duration, Moment, Instance and Event and four secondary senses termed Matrix, Agentive, Commodity and Measurement) he analysed their characteristics and one of the key features which distinguished the various lexical concepts was to which cognitive model for time each were connected. For example:

- (9.1) *Si-khatsi* *si-ya-hamb-a* *kakhulu*
 7-time SC7-DIS.PRES-travel-FV ADV.greatly
 'Time flies'

Expression (9.1) is clearly [MOVING TIME] and displays the [DURATION] sense which is the prototypical sense for the lexical concept for [time] in English as it is for [*si-khatsi*] in siSwati (Nichols, 2006, Evans, 2004). The [EVENT] sense is embedded in the [MOVING TIME] model in English and is depicted by the motion of events or moments passing EGO in Figure 9.1. Botne and Kershner have re-named it the [MOVING EVENT] model in their article which is discussed in detail later in this chapter (Botne and Kershner, 2008).

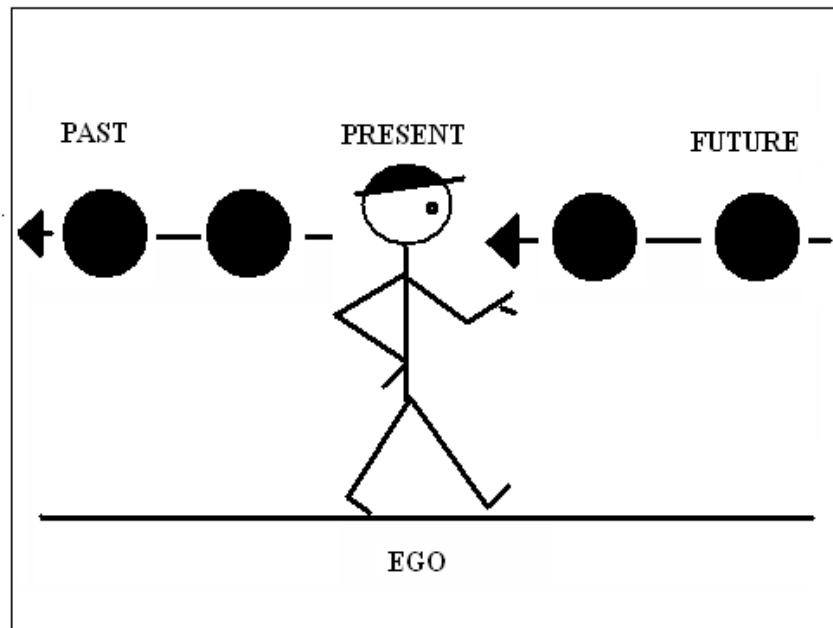


Fig. 9.1 [MOVING TIME] model (English)

In Figure 9.1 the dark discs represent events and the arrows on the timeline indicate the direction of motion. EGO is stationary (the deictic centre representing the present) and the arrow indicates that the future is before EGO, moving towards him, arriving, passing him and ending up behind as the past (Evans, 2004: 215).

9.2.2 Cognitive model for [MOVING EGO] (English)

In the [MOVING EGO] model of time (English) which is shown as Figure 9.2 EGO occupies the present but in this model it is EGO that is moving through time. The movement is unidirectional so the arrows point from left to right, representing the transition from the past to the future which means time travel back to the past is not allowed. The dark discs represent events and as with the [MOVING TIME] model all the primary and secondary temporal concepts can be integrated including seasonal events such as Easter etc. and specific events such as retirement, graduation etc. (Evans, 2004: 219).

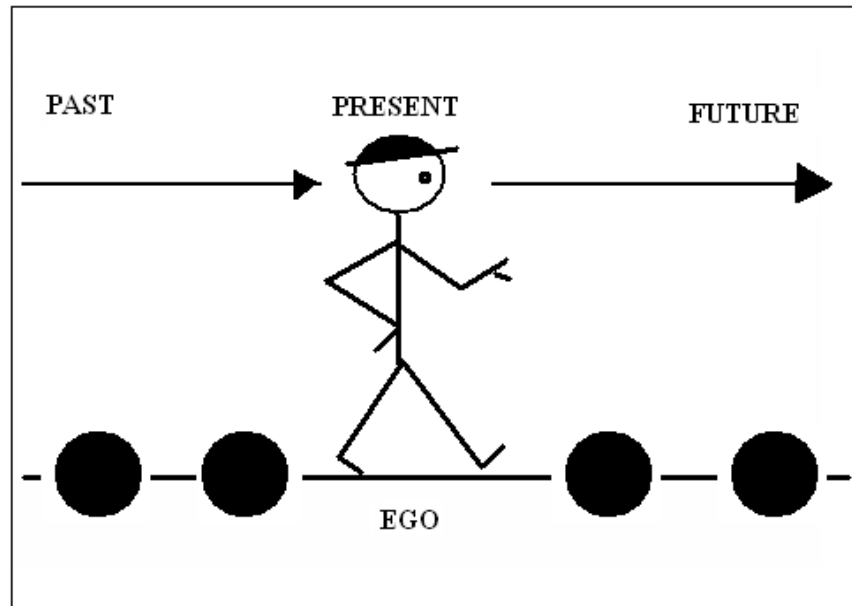


Fig. 9.2 [MOVING EGO] model (English)

9.2.3 [TEMPORAL SEQUENCE] cognitive model

The [TEMPORAL SEQUENCE] model of time does not incorporate the temporal concepts of [PAST], [PRESENT] and [FUTURE] as do the two previous models. This model sequences temporal events and portrays them in relation to each other either earlier or later. The days of the week are restricted to an unchanging order. Sunday immediately precedes Monday and so on through to Saturday. Monday may be referred to as yesterday (9.2), but it is also possible to refer to a day of the week and place it neither in the past or future but in relation to other days of the week (9.3).

(9.2) At Kwaluseni campus today the Tuesday seminar followed yesterday's lecture on Bantu Languages.

(9.3) The Phonetics lecture follows the Tuesday Semantics seminar.

In other languages temporal sequences are not always seen from a horizontal linear perspective, for example Mandarin Chinese and Japanese conceive earlier/later on a vertical axis, so that morning is the upper part of the day and afternoon is the lower part (Evans, 2004: 235). The notion of [PAST], [PRESENT] or [FUTURE] is tied to the human experiencer.

In Hausa there is a correlation between ‘earlier/later’ and ‘in front/behind’ which can be understood in terms of a race where the winner is in front of the other competitors. Human experience of such events motivates the conceptualization of the Hausa [TEMPORAL SEQUENCE] model which can be represented by the two forward facing persons below depicting in-tandem alignment (Figure 9.3).

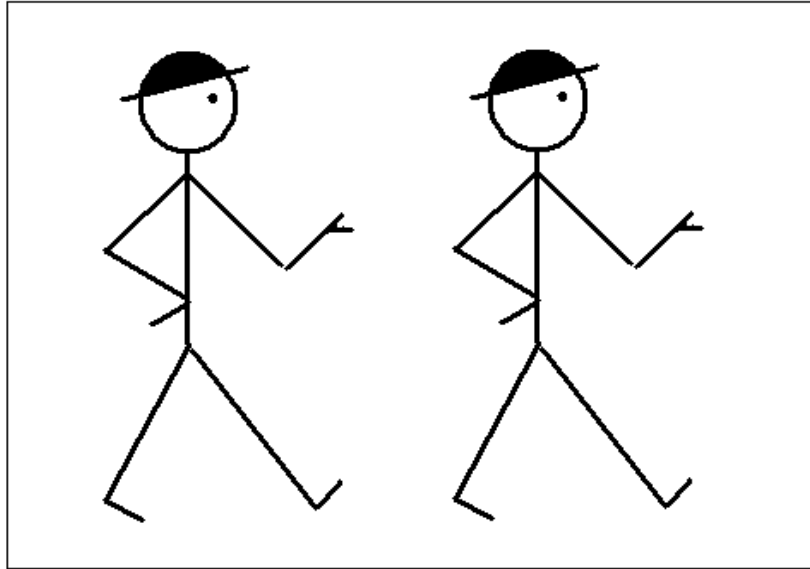


Fig. 9.3 In-tandem alignment

This alignment contrasts with the English model which is based on ‘Mirror alignment’ in which the figures involved face each other as illustrated below in Figure 9.4, and such a method of conceptualization can explain the different approach to temporal sequence adopted by speakers of Hausa (Hill, 1978).

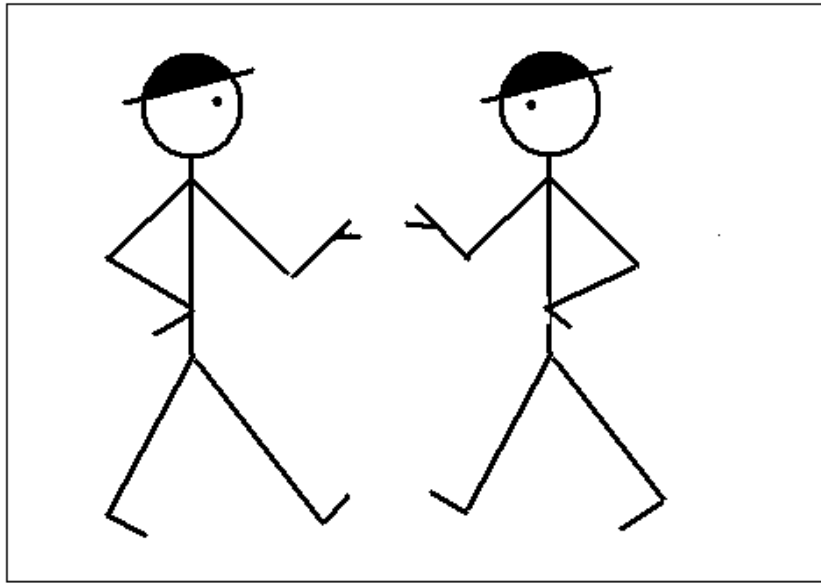


Fig. 9.4 Mirror alignment

To understand this altered model it is necessary to consider how Hausa speakers view an alignment of objects that have no distinct front and back orientation. When a Hausa speaker is looking ahead at a nearby rock and a tree beyond, whereas an English speaker would describe the rock as being in front of the tree, the Hausa speaker would describe the tree as being in front of the rock. It is this way of conceptualizing the alignment which is brought to the [TEMPORAL SEQUENCE] model.

The difference between the [TEMPORAL SEQUENCE] model and the EGO-centred models is the absence of EGO as illustrated in Figure 9.5. In this figure events are again represented by dark discs which follow on from each other such as days of the week. The concepts of in-tandem alignment (the Hausa model) and mirror alignment (the English model) can be incorporated by showing the orientation of the experiencer. The lexemes used with this model are ‘follow/precede’, ‘in front/behind’ and ‘before/after’ (Evans, 2004: 229).

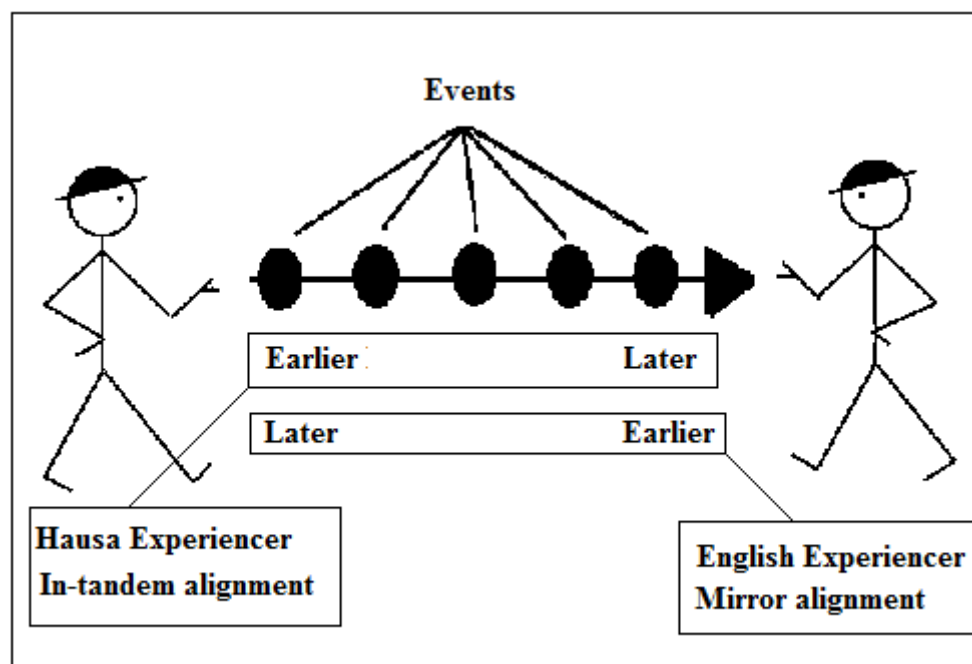


Fig. 9.5 [TEMPORAL SEQUENCE] model

9.3 Cognitive models of time and the siSwati TAM System

In this section I analyse data gathered during fieldwork in the light of the three traditional models described above. I define tense as a representation of the time that contains events and locates those events in universal time, whereas aspects are different representations of the time within those events (Nurse and Philippson, 2003: 94). For more detailed definitions of these terms see chapter two. The definitions are not determined by any particular theoretical perspective, but they illustrate how difficult it is to package these linguistic terms into self-contained, grammatical categories of tense, aspect and mood. The following examples illustrate how tense/aspect markers are indicators of temporal cognition and how cognitive models represent the temporal perspectives of different situations.

- (9.4) *Nge-si-khatsi* *Thandekile* *a-tful-a* *in-khulumo*
 ADV.PFX-7-time 1a.Thandekile SC1-put down-FV 9-speech
- si-khatsi* *sa-buk-ek-a* *si-hamb-a* *kakhulu*
 7-time REM.PAST.SC7-look-NEUT-FV SC7-travel-FV ADV.greatly

‘During Thandekile’s presentation the time seemed to fly by’

This is an instance of the prototypical [DURATION] sense of the lexical concept [time] [sikhatsi] and the sub-sense of [TEMPORAL COMPRESSION] whereby time seems to pass more quickly. It is represented by the [MOVING TIME] model in which the speaker or EGO is stationary in the present and is oriented towards the unknown future which is in front and moving towards and passing her to become past. EGO is located at the temporal deictic centre. The event in example (9.4) is located in the past as evidenced by the PAST tense concord *sa-* which displays subject agreement with *si-khatsi* ('time'). The first verb *ku-tful-a* ('put down') is in PARTICIPIAL mood and PRESENT tense which reflects the non-verbal English construction 'during'. The verb *ku-hamb-a* ('travel') is also in PARTICIPIAL mood and PRESENT tense which is usual for subsequent verbs in narratives and reflects the English use of the INFINITIVE. Compare with the SIMPLE PRESENT:

(9.5)	<i>Uma</i>	<i>Thandekile</i>	<i>a-tful-a</i>	<i>in-khulumo</i>
	ADV.when	1a.Thandekile	SC1-put down-FV	9-speech
	<i>si-khatsi</i>	<i>si-ya-hamb-a</i>		<i>kakhulu</i>
	7-time	SC7-DIS.PRES-travel-FV		ADV.greatly

'When Thandekile makes a presentation time flies by'

The disjoint PRESENT in (9.5) displays subject agreement with *si-khatsi* and encodes the PRESENT tense targeted which is Generic and covers past, present and future times. The meaning is that of the vast present, which ranges from anterior, through the present to posterior time, whenever Thandekile makes a presentation, the time passes quickly (Nurse, 2008: 318). No specific moment is identified and the presentations could take place in the past, present or future, and so the SUBJUNCTIVE is the appropriate mood which is indicated by the use of the distinctive class 1 subject marker (-a-) in *a-tful-a*. Compare with the PRESENT tense in expression (9.6) where INDICATIVE mood is used as indicated by the class 1 subject concord in *w-etful-a*.⁹⁴

⁹⁴ The verb *ku-tful-a* ('to put down') is one of a group of verbs which can take an initial *e-* (*kw-etful-a*). *Ku-tful-a* is a -CVC- verb that may have originated from a -C- verb which took a -ul- reversive transitive extension. With the latent initial *i-* that some monosyllabic verbs have, the optional *e-* could be the result. In (9.5) it appears without the initial vowel and with it in (9.6). The selection seems to have no semantic effect.

- (9.6) *Thandekile* *w-etful-a*⁹⁵ *in-khulumo*
 1a.*Thandekile* SC1-*put down*-FV 9-*speech*
- ne-si-khatsi* *si-ya-hamb-a* *kakhulu*
 ADV.PFX-7-*time* SC7-DIS.PRES-*travel*-FV ADV.*greatly*

‘Thandekile is making a presentation and the time flies by’

Nurse describes the vast present, and attributes the term to Hewson in personal correspondence (Nurse, 2008: 236). Expression (9.6) is taking place in the present, whereas (9.5) is taking place over a period spanning the past, present and future (Nurse, 2008: 318). The present then is complex, with Generic, Habitual and simple or vast tense.

- (9.7) *Nge-si-khatsi* *sa-lo-m-biko* *Thandekile*
 ADV.PFX-7-*time* PC7-DP3-3-*speech* 1a.*Thandekile*
- u-tsats-a* *imi-buto*
 SC1-*take*-FV 4-*question*

‘During the presentation Thandekile is taking questions’⁹⁶

Example (9.7) is PRESENT tense and cannot also be interpreted as an announcement at the commencement of the presentation that refers not to taking questions then but at any time during the presentation. My consultant advises me that this interpretation is impossible in siSwati and that a FUTURE tense is required to encode such a meaning:

- (9.8) *Nge-si-khatsi* *sa-lo-m-biko* *Thandekile*
 ADV.PFX-7-*time* PC7-DP3-3-*speech* 1a.*Thandekile*
- u-tawu-b-e* *u-tsats-a* *imi-buto*
 SC1-IMM.FUT-*be*-FV SC1-*take*-FV 4-*question*

‘During the presentation Thandekile is going to be taking questions’

My consultant used not the SIMPLE FUTURE (*u-tawu-tsats-a*) but a compound FUTURE tense in which the auxiliary takes the IMMEDIATE FUTURE tense marker and the auxiliary *be-*. The lexical verb is PARTICIPIAL mood and temporal proximity is encoded by the auxiliary but the use of the compound rather than simple form indicates that the taking of questions

⁹⁵ The insertion of the /w/ glide between the *u-* and *e-* is followed by reduction of the *u-*.

⁹⁶ My consultant explains that either *in-khulumo* or *um-biko* can be used, and they both have the same meaning.

is regarded as certain and imminent (INCEPTIVE) as this is the FUTURE IN THE PRESENT absolute tense.

- (9.9) *Nge-si-khatsi* *sa-le-n-khulumo,* *Thandekile*
 ADV.PFX-7-time PC7-DP9-9-speech 1a.Thandekile
- wa-tsi* “*si-khatsi* *si-ya-hamb-a*”
 REM.PAST.SC1-say 7-time SC7-DIS.PRES-travel-FV

‘During the presentation, Thandekile said “time flies by”

In (9.9) the target tense was PRESENT, but it is reported speech and *wa-tsi* (‘said’) is REMOTE PAST. The actual reported speech is disjoint PRESENT so my consultant considered that she was describing something that was said during a past event (the presentation) and chose to use the PAST tense concord.

Tense, aspect and mood have a significant influence on the conceptualization of [time] [*sikhatsi*] and the first three examples can be categorized as instantiations of the [DURATION] [TEMPORAL COMPRESSION] sub-sense, and [time] [*sikhatsi*] is conceptualized in terms of the [MOVING TIME] model. The last three examples are less clear-cut but in view of *nge-si-khatsi* (‘during’) they can also be classified as [MOVING TIME]. A range of tenses have encoded the same cognitive model which has been identified by meaning constructed at the level of the sentence not at word or morpheme level.

9.3.1 Cognitive models and grammaticalization of future markers

Grammaticalization and the morphology of tense/aspect markers in Bantu languages has been studied and is well-documented in the literature, notably by Nurse (Nurse, 2008). The two EGO-centred models, [MOVING TIME] and [MOVING EGO] discussed here are described in 9.2 and its sub-sections and in this section, as in 7.5, I refer to [MOVING TIME] rather than [MOVING EVENT] and the difference is purely terminological.

In siSwati there are IMMEDIATE and REMOTE FUTURE tenses that have numerous variants which have been listed in chapter two. The tense markers *-ta* (‘come’) and *-ya* (‘go’) mean these FUTURE tenses could be literally translated as ‘you are coming to drink’ (IMMEDIATE)

and ‘you are going to drink’ (REMOTE) and although the full forms are *-tawu-* and *-yawu-*, the short forms *-to-* and *-yo-* are more common in contemporary speech.

Moore cites Fleischman (Fleischman, 1982) as positing that ‘to go’ is more likely to produce FUTURE markers than ‘to come’ (Moore, 2000). The reasoning being that ‘to go’ would grammaticalize via the metaphor of the [MOVING EGO] model, and ‘to come’ via the [MOVING TIME] model. Her hypothesis suggests that in [MOVING EGO], EGO is going forwards to future events, as opposed to [MOVING TIME] where events are coming towards EGO and because [MOVING EGO] is the more natural of the two models by virtue of its EGO orientation it is preferred for use as a tense marker.

Moore also refers to work by Emanatian on FUTURE markers in Chagga (E60) (a Bantu language of Eastern Tanzania) in greater detail (Emanatian, 1992, Maho, 2003), which conflicts with Fleischman’s findings (Moore, 2000). Emanatian’s argument is that both tense markers (‘go’ and ‘come’) instantiate a [MOVING EGO] mapping in which EGO undergoes a change from present to future. ‘Come’ can do this because of decentering. Spatial use of ‘come’ in both Chagga and English normally encodes movement towards the speaker but can also be used in certain cases where the goal is not the speaker’s location. Decentering can also be applied temporally when encoding a future event. Normally the speaker is located at the goal at the time the motion event takes place, but with decentering this is not a requirement thus grounding the spatial shift in viewpoint in temporal use. This shows the importance of deixis and decentering in the way temporal metaphors encode meaning, linking with Botne’s work in which deixis is an important aspect of his hypothesis.

The IMMEDIATE and REMOTE FUTURE tenses have been regarded as being defined in terms of relative temporal proximity by the selection of the appropriate motion verb as auxiliary. My data suggest that this interpretation of tense in the grammars is an over-simplification and certainty of occurrence is as important as relative temporal proximity. The ALTERATIVE aspect is involved in the selection of REMOTE or IMMEDIATE tenses as discussed in section 5.9, so the issues relevant to the selection of FUTURE tense markers are:

- (a) Relative temporal proximity.

- (b) Certainty of occurrence.
- (c) Continuation or change of activity.
- (d) Deixis and de-centering.
- (e) Temporal cognition (cognitive models of time).
- (f) Cognitive temporal perspective.

Having described the standard EGO-centred and temporal sequence cognitive models for time with their unidirectional timeline and discussed their relevance for temporal cognition in siSwati including grammaticalization of FUTURE markers, in the next part of this chapter I describe Botne & Kershner's tertiary timeline and dual-domain cognitive model for analysing Bantu TAM systems (Botne and Kershner, 2008).

9.4 Overview of Botne & Kershner's cognitive linguistic approach

Botne and Kershner's (B&K) analysis of TAM systems in Bantu languages, using a cognitive model of time developed according to cognitive linguistics principles will be described and discussed in this section (Botne and Kershner, 2008). Their approach has been to use their cognitive model to explain unpredictable morphological characteristics of the multiple tenses in Bantu. Central to this approach is an enhanced model of time, comprising three timelines (which replace the traditional unidirectional linear timeline), two cognitive domains and the division of temporality into tense and tenor (described in sub-section 9.4.1). Their cognitive model is governed by Organising Principles which relate to the three timelines, two cognitive domains and verbal deixis (which is organised by realis, spatial position and temporality).

B&K adopt a cognitive linguistics approach which involves applying the analytical propensity of cognitive models to explain the morphological characteristics of the extensive range of tenses which are common in Bantu languages (multiple remote and immediate, future and past, basic and compound tenses) (Botne and Kershner, 2008, Botne, 2006).

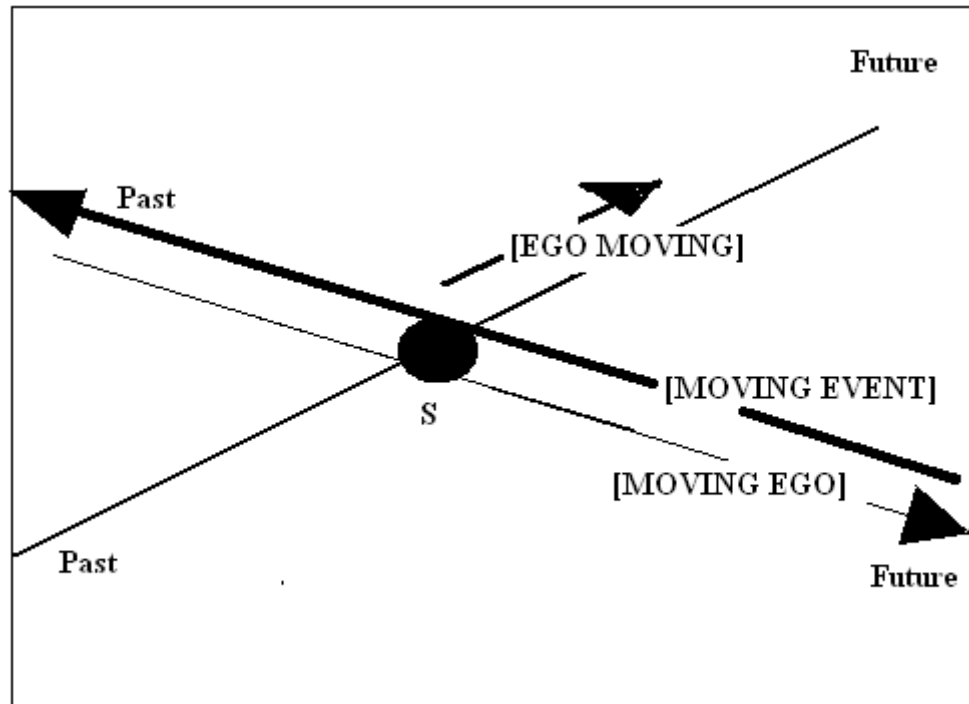


Fig. 9.6 Enhanced view of linguistic time showing combined timelines
(Botne & Kershner's tertiary model)

Figure 9.6 shows an enhanced view of linguistic time which construes time in terms of three perspectives at **S** and contrasts with the standard view which adopts a unidirectional linear timeline. The stationary timeline labelled **[EGO MOVING]** without an arrow represents the movement of EGO through time and the arrow alongside indicates the direction of travel of EGO who is located permanently in the present with a known past behind and an unknown future ahead. The second and third perspectives are represented by two moving timelines **[MOVING EVENT]** and **[MOVING EGO]** with arrows pointing in opposite directions and crossing the **[EGO MOVING]** timeline. This departure from the traditional view exhibited by the models described in sections 9.2.1 and 9.2.2, which propose a single, unidirectional timeline, is referred to by Botne as Organising Principle I and all three principles are defined below (Botne, 2006). He is not proposing that there are multiple timelines but that the same timeline is conceptualised differently by EGO in any given situation. The point **S** can be regarded as the Speaker-EGO, as well as the present (on the timeline which stretches in either direction to infinity in the past and future) and in terms of Reichenbach's terminology as the Speech Time (**S**) in his three-part model of (**E**) Event time and (**R**) Reference time (Reichenbach, 1947). The **[MOVING EVENT]** timeline is in bold so that

cognitive model is profiled. This diagram could therefore represent an expression such as ‘Christmas is coming’. EGO is moving along the [EGO MOVING] timeline into the future, but the cognitive salience is of the approach of Christmas along the [MOVING EVENT] timeline from the future on EGO’s right. The [MOVING EVENT] timeline is keeping pace with EGO’s motion along the EGO timeline and the arrow can be interpreted as signifying the movement of both EGO and the [MOVING EVENT] timeline.⁹⁷

B&K are suggesting that the [MOVING EGO] and the [MOVING EVENT] models are operational within the Privileged and Dissociated domains which are described and explained below. The Privileged domain encodes current, passing time at S whilst the Dissociated domain represents a shifted reference world which is subjectively more remote. The [EGO MOVING] model traverses these two domains.

B&K use linguistic data from various sources in order to develop their hypothesis. Having developed a cognitive model suited to the analysis of TAM systems in Bantu, they apply this model to certain ‘curiosities’ and seek explanations for elements within the systems selected. B&K’s research method has provided evidence for the existence of a multi-dimensional model of temporal relations which is organised by and grounded in two components:

1. The [EGO MOVING] and the [MOVING EGO] and [MOVING EVENT] perspectives on time (which explain the organisation of tense markers)
2. Temporal marking is differentiated within two cognitively distinct domains (the Privileged and Dissociated domains) (Botne and Kershner, 2008).

In the third part of this chapter I will show that the PERSISTIVE and ALTERATIVE aspectual markers *-sa-* and *-se-* as a consequence of their dual-time period properties are able to connect two cognitively distinct domains just as temporal markers such as *be-* can. They can achieve this because in MST terms they are space builders and can construct new mental spaces which in B&K’s model are described as cognitive domains.

⁹⁷ The diagram and description presented at the 2006 SOAS Conference, *Bantu Grammar: Description and Theory* was a binary system of intersecting timelines. In Botne’s later article, published jointly with Kershner (2008), the tertiary system had been developed which is depicted as Fig. 9.6.

B&K argue that the traditional model of a single uni-directional timeline is inadequate to satisfactorily explain the complex tense and aspect systems found in Bantu languages. Time can be conceptualised metaphorically in two ways [TIME as a PATH] or [TIME as a STREAM] and these two metaphors generate three cognitive models. In the first model, time is represented as a motionless path along which EGO moves, encountering events as time passes (i.e. as EGO advances along the path) and is called the [EGO MOVING] model. In the two other [STREAM] models, time is moving and in these analogies it is either events which are in motion or EGO. The [MOVING EVENT] model is likened to EGO being stationary on a bridge over a stream watching events float by from the future (upstream) to the past (downstream). In the [MOVING EGO] variant EGO is aboard a craft and is floating past events which are occurring (stationary) on the river bank.⁹⁸

The following figure is adapted from their article (Botne and Kershner, 2008: 148) and illustrates their claim that there are not multiple timelines but different construals of time:

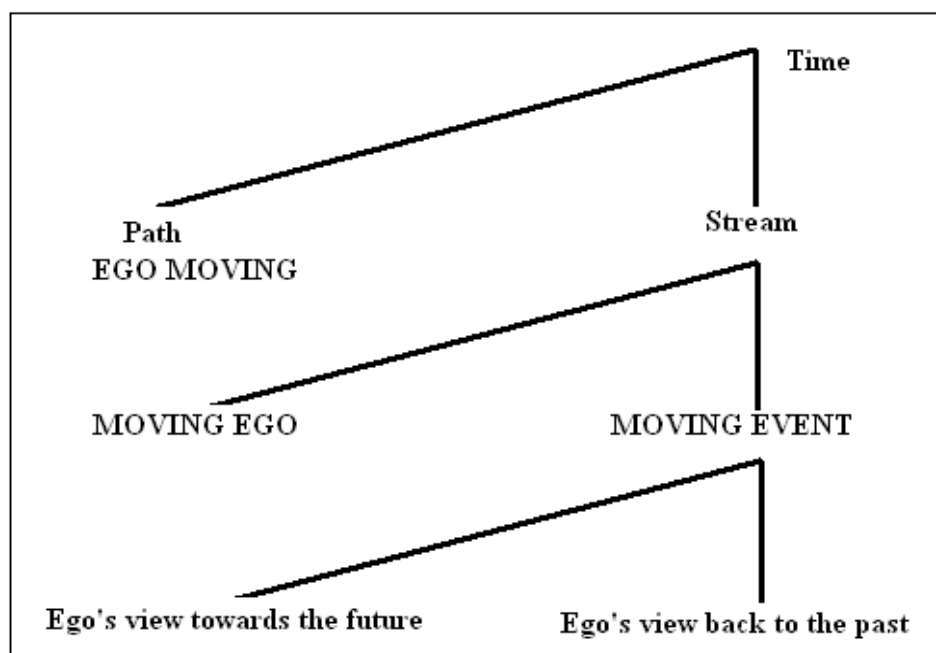


Fig. 9.7 Alternative Construals of Time

⁹⁸ Whilst B&K do not elaborate further these different analogies cannot be stretched too far. Clearly EGO is restricted to movement in one direction only, he must proceed at an unvarying pace and cannot retrace his footsteps, nor turn off the path either to left or right. That is the nature of time. I would describe such a scenario as more of a treadmill than a path, and the overall result of all these restrictions mean that it is a fine point whether EGO is moving along the path or the treadmill is moving under his feet (or the stream in B&K's metaphor).

Figure 9.8 depicts the three models with the dark discs E representing Events, the inverted cross and orb representing EGO and S representing the Speaker. The arrows indicate the direction of movement of either EGO or time.

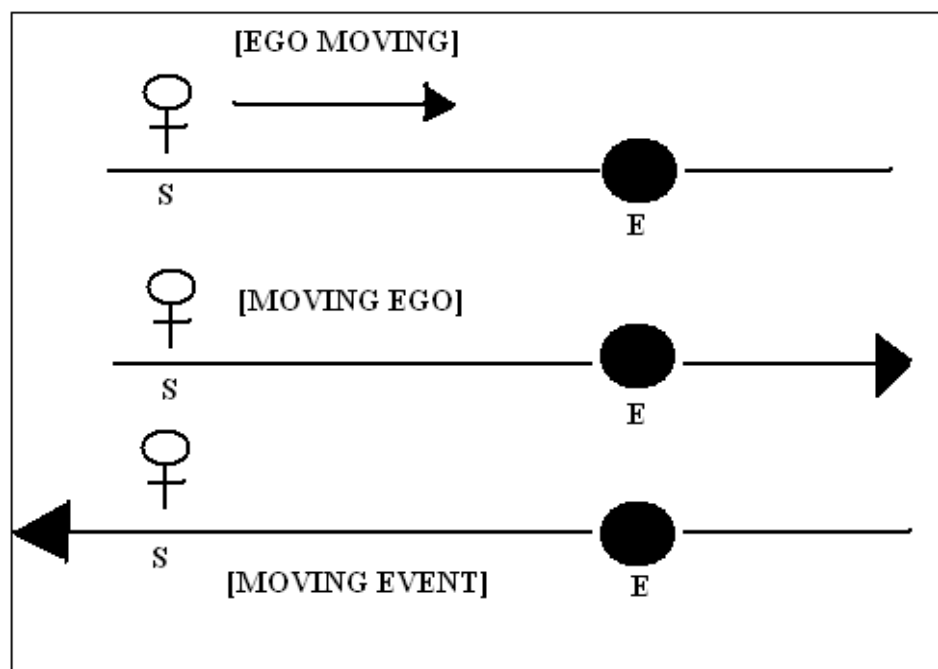


Fig. 9.8 Botne & Kershner's Timelines

Their combined model depicted in Figure 9.6 requires a stationary timeline (along which EGO will move) to conceptually cross timelines in motion. B&K claim that their model has a tertiary perspective rather than the binary one of an earlier model and state that [MOVING EGO] moves from past to future, while [MOVING EVENT] moves from future to past.⁹⁹ The direction of the arrows will indicate which model is in force. B&K stress that there are not three timelines but one timeline which is being conceptualised in three different ways. The [EGO MOVING] timeline is uni-directional although B&K introduce domains or cognitive (mental) worlds which can be compared with mental spaces as described in the previous chapter on MST (Botne and Kershner, 2008: 150). Time can be conceptualised in different ways, and linguistic features (the morphological coding of tense and aspect) will vary depending on cognitive perspective. So temporal markers will direct the listener to the appropriate cognitive domain of the speaker and enable a correct interpretation of the

⁹⁹ The complex models of time described by Evans (2004) are [MOVING TIME] and [MOVING EGO] with a third [TEMPORAL SEQUENCE] model in which EGO is absent. B&K's [MOVING EGO] and [MOVING EVENT] models match the two EGO-centred models but they do not address the [TEMPORAL SEQUENCE] model.

speech event. Tense denotes the relation between the deictic centre (the locus of the speech event) and one of these two cognitive domains so if S is included within the time span of the cognitive world then that world is designated Privileged but if excluded, then the cognitive world is labelled Dissociated.

Botne's hypothesis incorporates three organising principles (Botne, 2006):

	Organising Principle
I	Describes the standard cognitive models for time which are referred to as [MOVING EVENT], [MOVING EGO] and [EGO MOVING] in the tertiary model.
II (a)	Maintains that verbal deixis is organised by realis, spatial position and temporality at either S (Speech time in the Privileged domain) or the Dissociated domain (see Table 9.2 below).
II (b)	Asserts that there are two discrete cognitive temporal domains labelled Privileged and Dissociated in which time is divided into current or adjacent time units as depicted in Figure 9.9 below (Botne, 2006).
III	States that the deictic dichotomy inherent in these two domains conceptualizes time as either associated or dissociated from the present respectively.

Table 9.1 Organising Principles

In this opening section I have described Botne and Kershner's (B&K) cognitive model of time developed according to cognitive linguistics principles for the analysis of TAM systems in Bantu languages (Botne and Kershner, 2008). I have described the cognitive linguistic principles adopted in the development of B&K's model and central to this approach is an enhanced model of time, comprising three timelines, two cognitive domains and the division of temporality into tense and tenor (described in sub-section 9.4.1) which is governed by three Organising Principles.

9.4.1 Aspectuality in the Privileged and Dissociated domains

This section describes the Privileged and Dissociated domains and how they are differentiated in terms of realis, spatial position and temporality. I will describe how the model regards cross-domain temporality as tense in the traditional sense and internal domain temporality as the new concept of tenor. Tenor has particular relevance to the notion of anteriority or the PERFECTIVE aspect, being that part of the PERFECT tense which has aspectual relevance to the present thus cognitively linking the past with the current time unit. A practical illustration of the notion of tenor is found in the sub-section below concerned with the representation of PERFECT tenses (see section 9.6.3). Using the B&K model three aspectual markers for (D25) Kilega are represented in the Privileged domain. Four Bantu languages provide morphological details of the PROGRESSIVE, HABITUAL and GENERIC ‘presents’ which can be differentiated by the relevant timeline and domain using B&K’s model.

Botne introduces the distinction between the Privileged domain (= (S) Speech time) and Dissociated domain in terms of realis, spatial position and temporality:

	Privileged	Dissociated
Realis	Real	not real
Spatial position	Here	not here
Temporality	Contemporal	not contemporal (PAST)
	Contemporal	not contemporal (FUTURE)

Table 9.2 Privileged and Dissociated Domains (Organising Principle II a)

B&K’s position is that tense distinctions are influenced within cognitive space or domains by three factors: realis, space and temporality. The speech event is grounded in the real, here and now, in a mental world which they label the Privileged domain (P-domain). They use the term ‘contemporal’ to describe the ‘now’ which prevails and has relevance at Speech time. There is a contrasting Dissociated domain (D-domain) of irrealis, not here and non-contemporal which can be future or past (Botne and Kershner, 2008: 158/9). In Fig 9.9 Organising Principle II b is concerned with discrete cognitive domains which appear on the two timelines [EGO MOVING] and [MOVING EVENT].

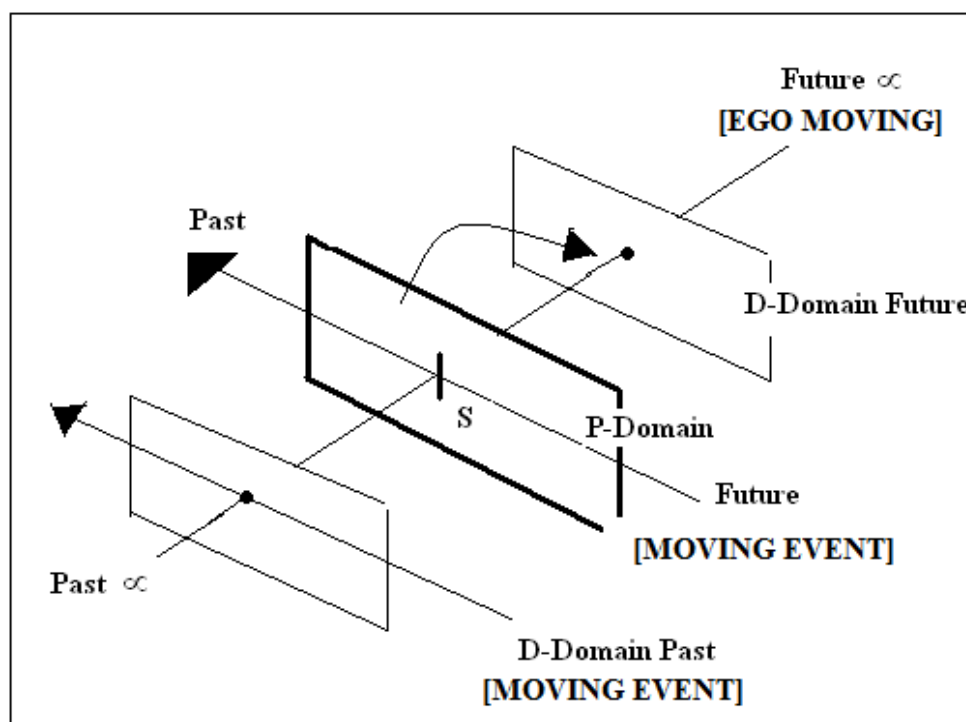


Fig. 9.9 Discrete cognitive temporal domains (Organising Principle II b)

The Privileged domain encodes current, passing time at S whilst the Dissociated domain represents a shifted reference world which is subjectively more remote. The tertiary model depicts the [MOVING EVENT] or [MOVING EGO] timelines (depending on the situation) intersecting [EGO MOVING] timeline at the Privileged domain. The multiple domains in the figures are representing multiple situations not multiple contemporaneous temporal representations. At any given moment EGO will adopt a dynamic conceptualisation of his temporal motion relative to his location at the deictic centre (S). Dissociated domains can be either past or future and the rectangular planes represent temporal space where a number of pasts and futures can be conceptualised. The Privileged domain is divided into a rectangular temporal space at the deictic centre and described as the current time unit (CTU) which extends outwards to past or future either side in a conceptualised temporal space which B&K differentiate as tenor rather than tense (Botne and Kershner, 2008: 167). This notion can be imagined diagrammatically by regarding cross-domain temporality as tense in the traditional sense and internal domain temporality as their new concept of tenor. Tenor has particular relevance to the notion of anteriority or the PERFECTIVE aspect, being that part of the PERFECT tense which has aspectual relevance to the present thus cognitively linking the past with the current time unit. It is also relevant in the representation of the

PERSISTIVE and ALTERATIVE aspects as will become clear in the formal analysis later in this chapter.

Their approach is elaborated in the light of MST described in chapter eight (Fauconnier, 1985, Cutrer, 1994) by adopting a cognitive linguistics approach and applying the notion of cognitive models to explain the morphological characteristics of the many tenses which are common in the Bantu group of languages (Botne and Kershner, 2008).

Tense and aspect markers such as *-sa-* (PERSISTIVE), *-se-* (ALTERATIVE) and *be-* (PAST, INCEPTIVE/CONDITIONAL) can be regarded as space builders which provide access to the two mental spaces (i.e. the Privileged and Dissociated domains). In the Privileged domain the verbal forms will tend to be unmarked for tense in siSwati as EGO's deictic centre is Speech time and the present, but all three markers encode aspect (with *be-* alone of the three encoding tense) and so can act as space builders in both domains.

The Privileged domain can represent language specific tense and aspectual markers using a typical Bantu language, Kilega (D25) which has the following aspectuality (Guthrie, 1967-71, Botne, 2006):

1	PROSPECTIVE	<i>-sa- .. -á</i>
2	PROGRESSIVE	<i>-ko- .. -á</i>
3	PERFECTIVE	<i>-a- .. -á</i>

Table 9.3 Aspectuality in Kilega (D25)

Aspect in the Privileged domain is illustrated in Figure 9.10 where S is Speech time and occurs at the intersection of the [EGO MOVING] and the [MOVING EVENT] timelines. The [MOVING EVENT] line is parallel with the Privileged domain and perspective is towards the past from the present. EGO moves from the past along the [EGO MOVING] line into an unknown future and a limitless series of Dissociated domains leaving a similar set behind her in the past.

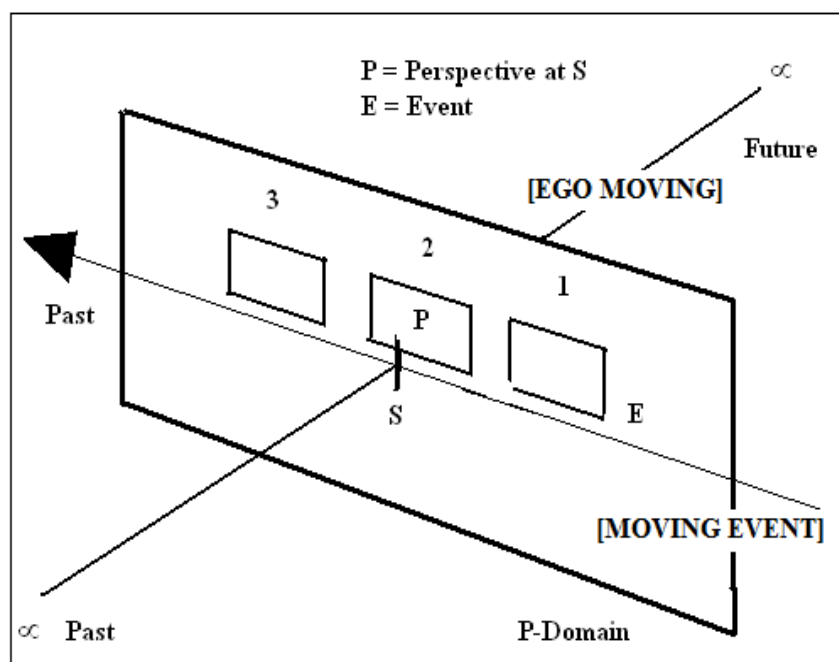


Fig. 9.10 Aspect in the P-domain

The aspect markers for (D25) Kilega are shown in Table 9.3. In the highlighted Privileged domain rectangle are three smaller rectangles numbered 1 to 3 located in the future, present and past. PROSPECTIVE aspect encodes an event that is likely to happen, PROGRESSIVE encodes an event that is ongoing at reference time and PERFECTIVE contrasts with the IMPERFECTIVE and describes the subject at the completion of an event (Rose et al., 2002). From these definitions it is clear that from the perspective of S the PROSPECTIVE and PERFECTIVE events should be located on the future and past sides of the Privileged domain (Botne, 2006).

The following aspects in the PRESENT tense are marked in the languages in Table 9.4: PROGRESSIVE, HABITUAL and GENERIC:

	PROGRESSIVE	HABITUAL	GENERIC
Chindali (M305)	-ku- .. -a	-ku- .. -a	-ku- .. -a
Gevove (B305)	-kà- .. -à	-kà- .. -ág-à	-Ø.. -à
Gikuyu (E51)	-ra- .. -a	-Ø.. -ag-a	-Ø.. -ag-a
Isangu (B42)	-vónə' .. ə'	-ká- .. -ì	-Ø- .. -ə'

Table 9.4 PROGRESSIVE, HABITUAL and GENERIC Aspects

In the B&K models shown below as Figure 9.11 PROGRESSIVE, HABITUAL and GENERIC 'presents' can be differentiated by the relevant timeline and domain. The PROGRESSIVE PRESENT indicates an event situated between the two vertical lines at S along the [MOVING EVENT] timeline in the Privileged domain, a HABITUAL PRESENT is valid throughout the entire domain (hence the shaded coverage) (Botne and Kershner, 2008). GENERIC denotes the relation of an event to the static timeline from the perspective of EGO moving across a static temporal landscape. GENERIC situations hold for all time; past, present and future (Rose et al., 2002).

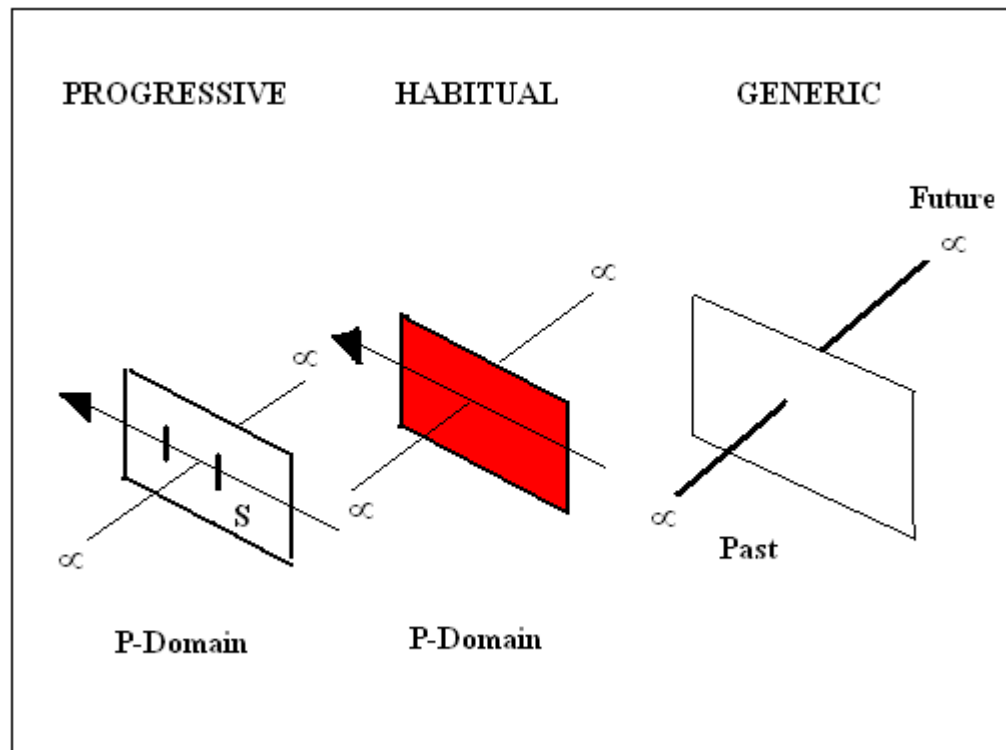


Fig. 9.11 Orientation of PRESENT tense aspects

With the dual-time period aspects, PERSISTIVE and ALTERATIVE, I will show how the markers *-sa-* and *-se-* appear in both the Privileged and Dissociated domains in B&K type cognitive models. The tense/aspect marker *be-* not only connects the two distinct domains but in the 'L-shapes' which are typical of the relative IMPERFECTIVE FUTURE tenses combines tenor (internal-domain temporality) with tense (cross-domain temporality) as seen in section 9.6.4.

9.4.2 The Organising Principles applied to Nugunu

Section 9.4 described the Organising Principles and in this section those principles will be applied to Nugunu (A62) (Guthrie, 1967-71) a Bantu language spoken in Cameroon, in terms of temporal and aspectual marking and verbal deixis with a view to describing their functionality and assessing their effectiveness.

As described in Table 9.2 the speech event is grounded in *realis*, the spatial and the temporal and two domains can be identified, the *Privileged* which encodes real, here and contemporal and the *Dissociated* which encodes not real, not here and not contemporal. The *Privileged* domain includes the deictic centre, Speech time and is marked as *S* in the diagrams. Languages may choose to mark these two distinct cognitive worlds (domains) grammatically or they may choose to mark none, one or more of the three criteria (Botne and Kershner, 2008: 159). Tense relations can be analysed in terms of proximal/distal distinctions (Traugott, 1978) and B&K reference Cutrer who observed that relative temporal proximity also reflects non-actuality and non-probability (Cutrer, 1994). Linguistic specification of events involves all three phenomena, *realis*, space and time and they assert that there are several kinds of future and past reference that can be distinguished which fall within either the *Privileged* or *Dissociated* domain. Nugunu's TAM system provides an illustration of these complex relationships (Gerhardt, 1989, Orwig, 1991).

(9.10)	P3	<i>m-ba</i>	before yesterday
	P2	<i>á</i>	preceding relevant time unit (e.g. yesterday, last month)
	P1	<i>bá-a</i>	earlier today
	P	\emptyset	
	IMP	<i>-an</i>	
	RSL	<i>á</i>	resultative
	F1	<i>ga-á</i>	today or tomorrow (with adverb can be used for more distant time)
	F2	<i>ná</i>	one or two days after tomorrow (later if certain)
	F3	<i>n-ga</i>	more than two days

The *REMOTE* tenses (P3 and F3) comprise an initial nasal segment (*m-ba* and *n-ga*). The *IMMEDIATE* tenses (P1 and F1) are decomposable with the initial CV appearing alone in relative clauses (*bá-a* and *ga-á*). P2 (*á*) varies according to context but denotes the relevant time unit preceding the temporal locus, so can overlap with P3 (*m-ba*) temporally, so in B&K's model, they denote different perspectives on the timeline. P3 situates an event in the

Dissociated domain and P2 in an anterior time unit (AntTU) of the Privileged domain (Botne and Kershner, 2008: 161) as illustrated in Figures 9.12 and 9.13:

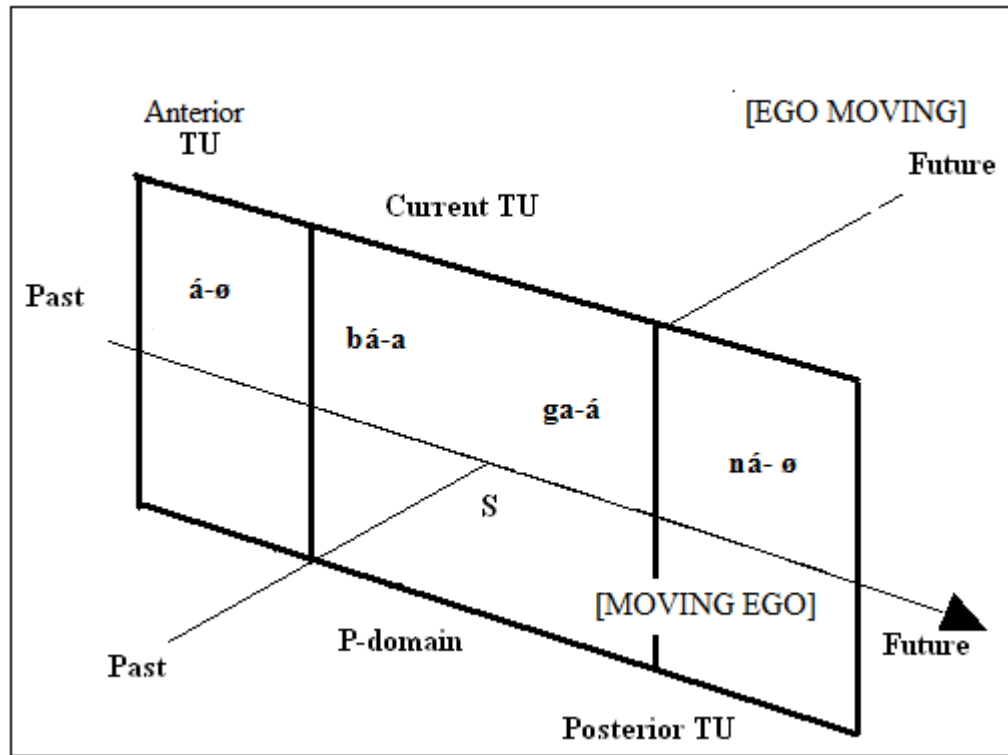


Fig. 9.12 Organisation of tense markers in Nugunu (Privileged domain)

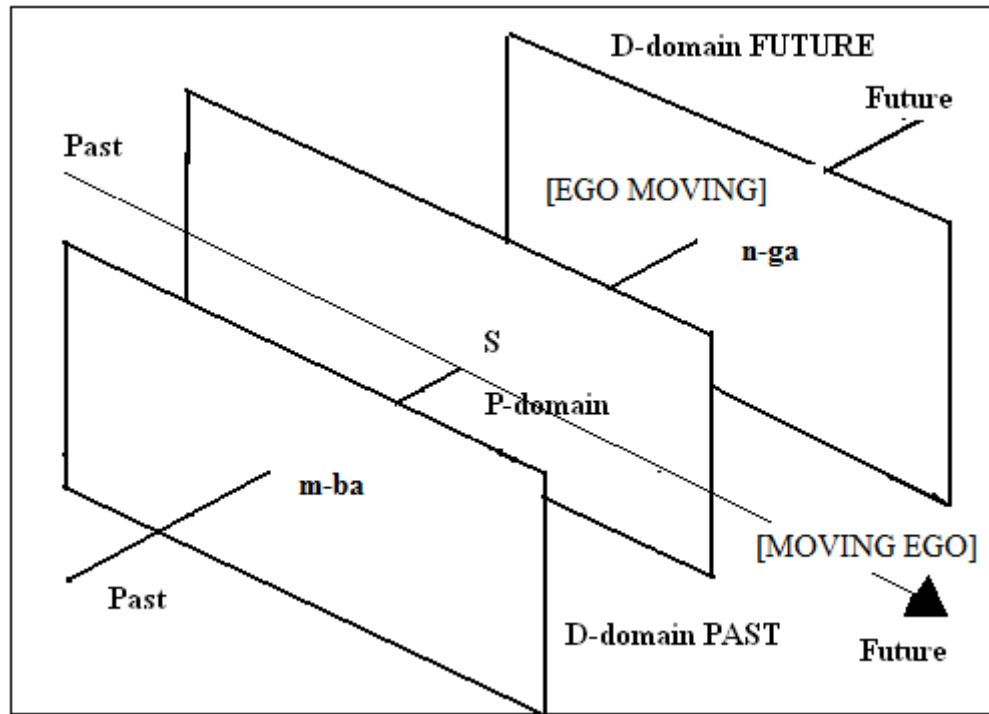


Fig. 9.13 Organisation of tense markers in Nugunu (Dissociated domain)

A significant feature of the Nugunu tense markers illustrated in the diagrams is the parallel nature of the PAST and non-PAST morphemes which are similar tonally and segmentally. The REMOTE tenses are both N.CV and L tone (*m-ba* and *n-ga*). P2 and F2 are monomorphemic and H tone (*á* and *ná*). The IMMEDIATE tenses are CV-*a* with reversed H and L tones (*bá-a* and *ga-á*). Gerhardt analyses the RESULTATIVE (*á*) and P2 (*á*) as the same form (Gerhardt, 1989: 321). The tense markers can be divided into two sets. The first set patterns along the [MOVING EGO] timeline (Figure 9.12) which intersects the Privileged domain and being the deictic centre includes Speech time. EGO moves along this line and the direction of the arrow is from past to future which is one of two possible timelines in the tertiary model that can intersect the Privileged domain, the other being [MOVING EVENT] where the direction of the arrow is reversed from future to past.

The second set of Nugunu tense markers patterns along the [EGO MOVING] timeline (Figure 9.13) which passes through the temporal landscape connecting the Privileged domain with the past and future Dissociated domains (Botne and Kershner, 2008: 153 & 164). PAST and FUTURE tense relations are described on the [EGO MOVING] timeline (which crosses

domains) but on the time-lines within the Privileged domain the term tenor is applied (Botne and Kershner, 2008: 167).

B&K assert that the evidence that supports their adopting a [MOVING EGO] and not a [MOVING EVENT] perspective is that firstly the RESULTATIVE does not encode a retrospective view of events but a continuous view of the result state at Speech time and secondly that past time adverbials are not permitted. Furthermore the Nugunu PRESENT IMPERFECTIVE denotes an unbounded temporal interval and can be construed in one of two ways, internally as time contained within the event, or externally as time containing the event. In both instances EGO's perspective is towards the end-point of the event, hence [MOVING EGO] is appropriate.

9.5 Botne and Kershner's cognitive model and the siSwati TAM system

In this section I describe the siSwati IMMEDIATE and REMOTE FUTURE markers and their placement on B&K's cognitive model followed by a comprehensive description of siSwati TAM markers and how they are accommodated in the Privileged and Dissociated domains of the model.

In Figure 9.14 I have applied B&K's model to siSwati. It depicts the two FUTURE tenses in siSwati and is adapted from Botne's figure for isiZulu FUTURE tenses. In siSwati the motion verbs *ku-y-a* ('to go') and *ku-t-a* ('to come') have been grammaticalized as FUTURE tense markers:

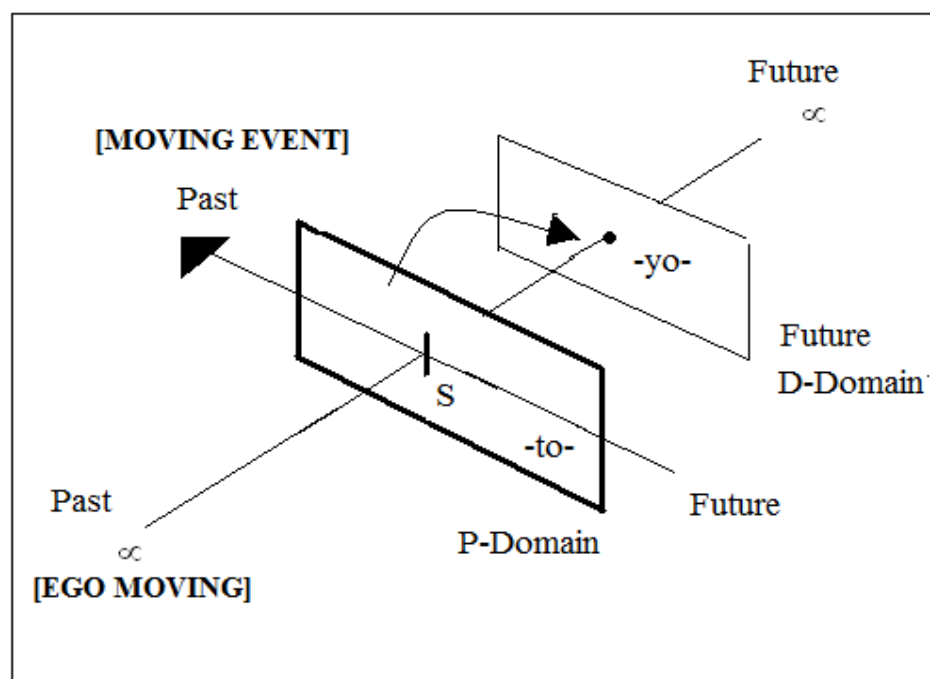


Fig. 9.14 SiSwati FUTURE tenses

In Figure 9.14 (S) is the deictic centre and so *-to-* is appropriate in the Privileged domain moving from the future along the [MOVING EVENT] timeline to the deictic centre. This is the immediate future which can be contrasted with *-yo-* where the movement is from the deictic centre to the Dissociated future domain and to a location shown as the small dark disc on the [EGO MOVING] timeline where it is bisected by this domain. The REMOTE FUTURE marker *-yo-* appears in the future Dissociated domain which is as expected and the IMMEDIATE FUTURE marker *-to-* is located in the Privileged domain on the right hand (future) side. EGO is situated at Speech time and the positioning of the tense markers conforms to the relative temporal proximity criteria attributed to them in terms of immediate and remote future. Furthermore, the IMMEDIATE FUTURE marker is located in a similar position to the PROSPECTIVE marker in the Kilega example as was seen in Figure 9.10. The IMMEDIATE and REMOTE FUTURE markers are not simply used by siSwati speakers to mark relative temporal proximity, but also to encode certainty and even spatial proximity. The PROSPECTIVE aspect represents an event that is thought likely to happen so the co-location of these two markers (IMMEDIATE FUTURE and PROSPECTIVE) is plausible. B&K's modelling of the cognitive organisation of tense and aspect systems in Bantu (Botne and Kershner, 2008) can be applied to the siSwati system. The FUTURE tenses in siSwati

employ the motion verbs *ku-ta* and *ku-ya* as auxiliaries encoding the immediate and remote future respectively and the siSwati *-ta-* behaves as a motion verb in the following example:

- (9.11) *We-t-a* *e-makethe*
 REM.PAST.SC1-*come*-FV LOC-9.*market*
 ‘She came to the market’¹⁰⁰

The lexical verb *-ta-* expresses motion to a deictic centre. Similarly the motion verb in siSwati *-ya-* expresses motion to a location:

- (9.12) *Wa-y-a* *e-makethe*
 REM.PAST.SC1-*go*-FV LOC-9.*market*
 ‘She went to the market’

Both motion verbs have been grammaticalized in siSwati as FUTURE auxiliaries, *-ta-* for IMMEDIATE FUTURE and *-ya-* for REMOTE FUTURE:

- (9.13) *Ba-taku-fik-a* *nge-bhasi*
 SC2-FUT.IMM-*arrive*-FV ADV.PFX.*by-9.bus*
 ‘They will arrive by bus’¹⁰¹
- (9.14) *Ba-yaku-fik-a* *nge-bhasi*
 SC2-FUT.REM-*arrive*-FV ADV.PFX.*by-9.bus*
 ‘They will arrive by bus’

The REMOTE and IMMEDIATE FUTURE tenses encode temporal proximity, but their semantic effect is not straightforward and even the specific time units are difficult to allocate. They also encode certainty of occurrence and I have explored these issues in section 9.3.1. As canonical motion verbs for ‘come’ and ‘go’ they are encoding deictic opposition and this issue was also explored in that section.

The siSwati tense markers are underlined in the following profile:

¹⁰⁰The monosyllabic motion verb - (*i*) *ta* has a latent /*il*/. The REMOTE past tense concord (*wa-*) coalesces with this latent vowel to result in /*we*/.

¹⁰¹ There are numerous variants of the two forms and the most common are *-yo-* and *-to-*. The variants do not appear to have any obvious semantic effect and are described in more detail in section 2.2.3.2.

(9.15)	P2(ii)	REMOTE PAST	<i>Ngá-nats-a</i>	I drank
	P2(i)	REMOTE PAST	<i>Bé-ngi-nats-a</i>	I was drinking
	P1(ii)	IMMEDIATE PAST	<i>Be-ngi-nats-a</i>	I was drinking
	P1(i)	PERFECT	<i>Ngi-nats-(il)e</i>	I drank/have drunk/have been drinking
		Stative	<i>Ngi-nats-ile</i>	I am drunk
		PRESENT	<i>Ngi-ya-nats-a</i>	I drink/am drinking
			<i>Ngi-Ø-nats-a</i>	I drink/am drinking
	F1	IMMEDIATE FUTURE	<i>Ngi-tawu-nats-a</i>	I will drink/be drinking
	F2	REMOTE FUTURE	<i>Ngi-yawu-nats-a</i>	I will drink/be drinking

This is a simplified version of the siSwati TAM system. F2 is generally accepted to be REMOTE and F1 IMMEDIATE, but many exceptions do not fit such a dichotomy. There are many morphological variants for both FUTURE tenses and these have been described in chapter two. Also the use of the compound FUTURE form rather than the simple FUTURE has semantic effect:

(9.16)	<i>(Be)-ngi-tawu-b-e</i>	<i>ngi-nats-a</i>	
	(PAST)-SC1sg-IMM.FUT- <i>be</i> -FV	SC1sg- <i>drink</i> -FV	
	‘I am about to be drinking’	FUTURE IN THE PRESENT	INCEPTIVE
	(‘I was about to be drinking’)	FUTURE IN THE PAST	CONDITIONAL

The compound form expresses less certainty, so in selecting the appropriate verbal form the speaker evaluates temporal proximity and certainty. Prefixal *be-* on the auxiliary of the compound tense increases uncertainty and encodes and relocates Event and Reference time anterior to Speech time.

Having described the situation in siSwati I have allocated the siSwati temporal markers from the above profile on a Botne and Kershner domain-type temporal cognitive model as shown in Figure 9.15 taking into account the observations above:

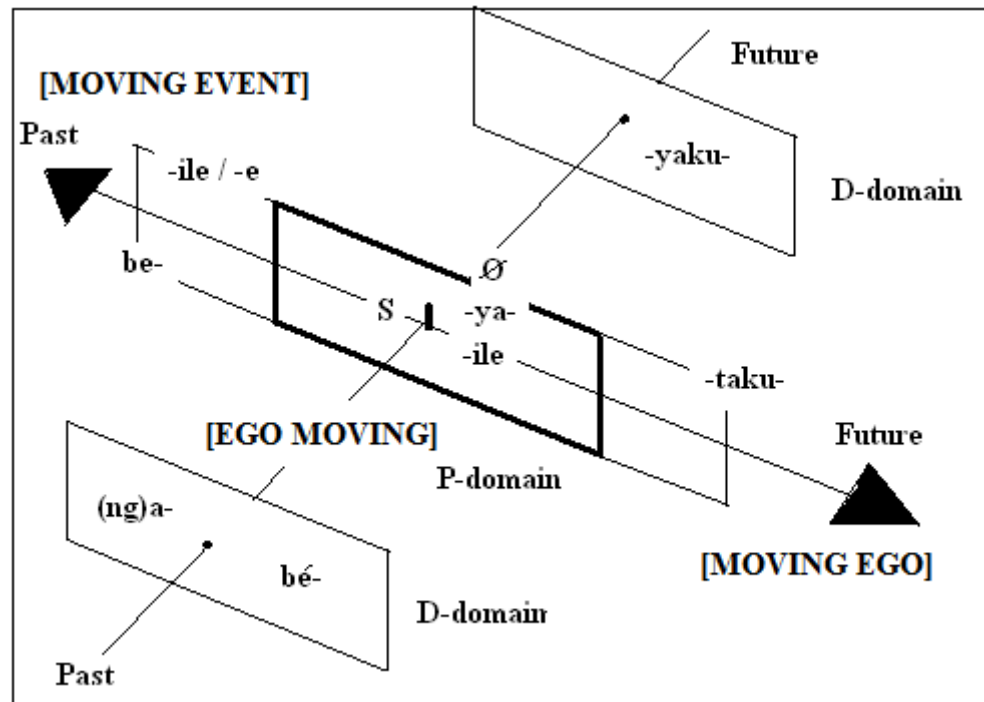


Fig. 9.15 Organisation of tense markers in siSwati

Example (9.17) alone and out of context, tells us little about temporal cognition in siSwati:

- (9.17) *U-ya-tseng-is-a*
 SC1-DIS.PRES-buy-CAUS-FV
 'He sells'

This form could be Progressive, Habitual, or Generic or none of the three, and it could be accommodated within either a [MOVING EGO] or [MOVING EVENT] temporal cognitive perspective. Only context and pragmatic information will clarify these possibilities and I describe scenarios in siSwati illustrating this assertion below.

In their article the language specific diagrams illustrating B&K's examples show either [MOVING EVENT] as (future > past) or [MOVING EGO] as (past > future) timelines passing through the Privileged domain on the [EGO MOVING] timeline along which EGO moves from past to future. They state that in every case the temporal relation between EGO and Event is constant in time and that only the cognitive orientation of the individual conceptualizing the situation changes (Botne and Kershner, 2008: 151). The direction of the timelines is therefore not language specific but speaker motivated. Depending on the perspective either a [MOVING EGO] or [MOVING EVENT] timeline will be appropriate. In the real world there is

only one unidirectional timeline and the multiple diagrammatic timelines merely reflect the speaker's cognitive orientation in any given situation. The fundamental premise behind their cognitive approach is that when Bantu temporal and aspectual markers are allocated to the cognitive domains (either Privileged or Dissociated) of their models, this will provide explanations for the patterning of morphological forms. In their model this necessarily requires a decision to be made regarding the selection of either the [MOVING EVENT], [MOVING EGO] or [EGO MOVING] timeline. My reservation concerning this method is that with un-contextualised data it is not possible to assess which cognitive model is appropriate. It is not the VP in whole or in part which provides evidence for the speaker's temporal cognitive perspective, but the entire utterance and the context within which it is uttered. The siSwati stative can serve as an example:

- (9.18) *Ngi-lamb-ile*
 SC1sg-*get hungry*-STAT.PERF
 'I am hungry'

Ngi-lamb-ile is the PERFECT STATIVE of *ku-lamb-a* ('to get hungry') (Rycroft, 1981: 55).

- | | | | |
|--------------------------|-----------------------|-----------------|-----------------|
| (9.19) <i>E-ku-s-eni</i> | <i>ngi-dl-e</i> | <i>ku-dla</i> | <i>ngako</i> |
| LOC-15- <i>dawn</i> -LOC | SC1sg- <i>eat</i> -FV | 15- <i>food</i> | CONJ- <i>so</i> |

ngi-ya-lamb-a
 SC1sg-DIS.PRES-*get hungry*-FV

'I ate food early this morning so I am getting hungry'

Example (9.18) does not indicate the speaker's conceptualization of time by means of the [MOVING TIME], [MOVING EGO], [EGO MOVING] or the [TEMPORAL SEQUENCE] models of time. However in example (9.19) the [MOVING EGO] model is indicated and this is so because the utterance is in context. The hunger event is seen as being in the imminent future and EGO is approaching it. When the event coincides with his present then he will be hungry. At that point the speaker may well utter expression (9.18) but no assessment regarding his cognitive perspective can be deduced from that remark alone. It is not the VP but the context which is crucial. *Ngi-lamb-ile* and *ngi-ya-lamb-a* reflect the speaker's view of the temporal situation (either being or becoming hungry) but out of context they do not

indicate the speaker's adoption of a particular cognitive perspective on the passage of time as represented in any of the cognitive models described in this analysis.

Expression (9.20) is [MOVING TIME] but it is not the stative verb which determines which model is employed cognitively by the speaker EGO as it is not possible to allocate any VP to any particular model for time. It is the expression in its entirety, the context and the speaker intent which provides evidence for the temporal conceptual metaphor of whether it is EGO or TIME in motion.

(9.20) <i>Emini</i> LOC.ADV. <i>at midday</i>	<i>uma</i> CONJ. <i>if</i>	<i>ngi-lamb-ile</i> SC1sg- <i>get hungry</i> -STAT.PERF	
<i>ku-ya-y-e</i> SC15-DIS.PRES- <i>go</i> -FV	<i>ku-nga-tsi</i> SC15-POT- <i>say</i>	<i>si-khatsi</i> <i>7-time</i>	<i>s-ami</i> PC7.PS1sg
<i>se-ku-dl-a</i> PC7-15- <i>eat</i> -FV	<i>sa-s-emi</i> PC7-PLC-LOC.ADV. <i>at midday</i>	<i>a-si-yo-ke</i> NEG-SC7-REM.FUT-DEF.VB	
<i>si-fik-e</i> SC7- <i>arrive</i> -FV			

‘At midday, if I am hungry, it seems my lunch break will never arrive’

Example (9.21) shows how context and the lexical content of the verb (*Aktionsart*) controls which temporal model is operative. It is a sequence of events (breakfast, midday, lunch break) that has an established, pre-ordained order. Despite the series of time points a [TEMPORAL SEQUENCE] model of time is not evidenced because the stative verb *ku-lamb-a* is EGO-centred and so only the EGO-centred models are appropriate. The STATIVE PERFECT form is not used as there is cognitive perception of EGO moving towards lunch time so the disjoint present is appropriate because the context of the expression is such that there is a period during which the speaker is feeling hungry. The STATIVE PERFECT describes an experienced state whereas the disjoint PRESENT describes a current situation. The crucial point is that the form *ngi-ya-lamb-a* cannot out of context indicate the cognitive model of time that is employed by the speaker in the utterance.

- (9.21) *Ngi-dl-a* *ku-dla* *kwa-s-ekuseni*
 SC1sg-eat-FV 15-food REM.PAST.SC15-PLC-LOC.ADV.morning
- nge-n-simbi* *ye-si-khombisa* *be-se* *kutsi*
 ADV.PFX.at-9-bell PC9-7-seven PAST-AUX.ALT CONJ.that
- ku-suk-el-a* *emini*
 SC15-originate-APP-FV LOC.ADV.at midday
- ngi-ya-lamb-a* *kute* *ku-b-e*
 SC1sg-DIS.PRES-get hungry-FV CONJ.until SC15-be-FV
- si-khatsi* *s-ami* *se-ku-dl-a* *emini*
 7-time PC7-PS1sg PC7-SC15-eat-FV LOC.ADV.at midday

‘I have breakfast at 7.00 then from midday I am hungry until my lunch break’

That tense/aspect markers can be classified in terms of their proposed model is fundamental to B&K’s hypothesis and the effectiveness of this function is accepted. Certainly morphological regularities (and seeming curiosities) can be explained by allocating markers on the cognitive domains of their tertiary model. However, for reasons detailed above its reliability as a tool for identifying conceptual models for time in language specific research into temporal cognition is less certain.

9.6 Botne and Kershner's model as analytical tool

In this final part of the chapter I use B&K’s tertiary model in a formal analysis of the data gathered during fieldwork. In the five sub-sections that follow I review various aspects of my analysis within the theoretical framework of their model. I consider the joint role of the PERSISTIVE aspect marker *-sa-* with the conjunction/auxiliary *solo*, ALTERNATIVE and PERSISTIVE aspects in greetings, the ALTERNATIVE aspect marker with PERFECT tense/aspect, FUTURE tenses and counter-expectational constructions.

9.6.1 The joint role of conjunction/auxiliary *solo* with PERSISTIVE *-sa-*

This approach differs from B&K's as they were concerned with a range of Bantu languages and their TAM systems. My thesis is concerned primarily with the PERSISTIVE and ALTERNATIVE aspects in one Bantu language (which are encoded morphologically by *-sa-*, *-se-* and lexically), the relationships which are established between the cognitive domains

(mental spaces), the cognitive models activated and what insights their representation in B&K's model adds to our understanding of dual-time period aspectual markers. In this subsection I use two expressions which feature *solo* and the PERSISTIVE aspect marker *-sa-* and apply B&K's model to their representation and analysis. I consider how their dual-time period aspectuality can be depicted in the dual cognitive domains of the model and which timelines are semantically appropriate to describe their temporal and aspectual characteristics. Having applied B&K's model as an analytical tool I assess the relevance of that analysis in terms of the principles of Mental Spaces Theory.

In section 4.3 I discussed the following example:

- (9.22) *Solo* *u-sa-dadish-a* *si-Swati?*
 CONJ.*still* SC2sg-PERS-*study*-FV 7-*Swati*
 ‘You are **still** studying siSwati?’

The expression's acceptability is not dependent on *solo* which adds emphasis. There are various strategies to encode Persistivity or PERSISTIVE aspect. The aspect marker *-sa-* alone or with *solo* encodes PERSISTIVE whereas *solo* alone indicates Persistivity and there is a further strategy in which a verb with persistive meaning such as *ku-chubek-a* ('to continue') is used. The PERSISTIVE aspect describes situations in which two separate time periods are linked and in the intervening period the activity is either interrupted or not. In section 4.3, I sought to establish whether the selection of one or other of the above strategies was suited to either type of intervening period, i.e. the aspect marker *-sa-* alone can be used when two separate time periods are connected by an activity which is uninterrupted and *solo* can appear with *-sa-* in such a scenario.

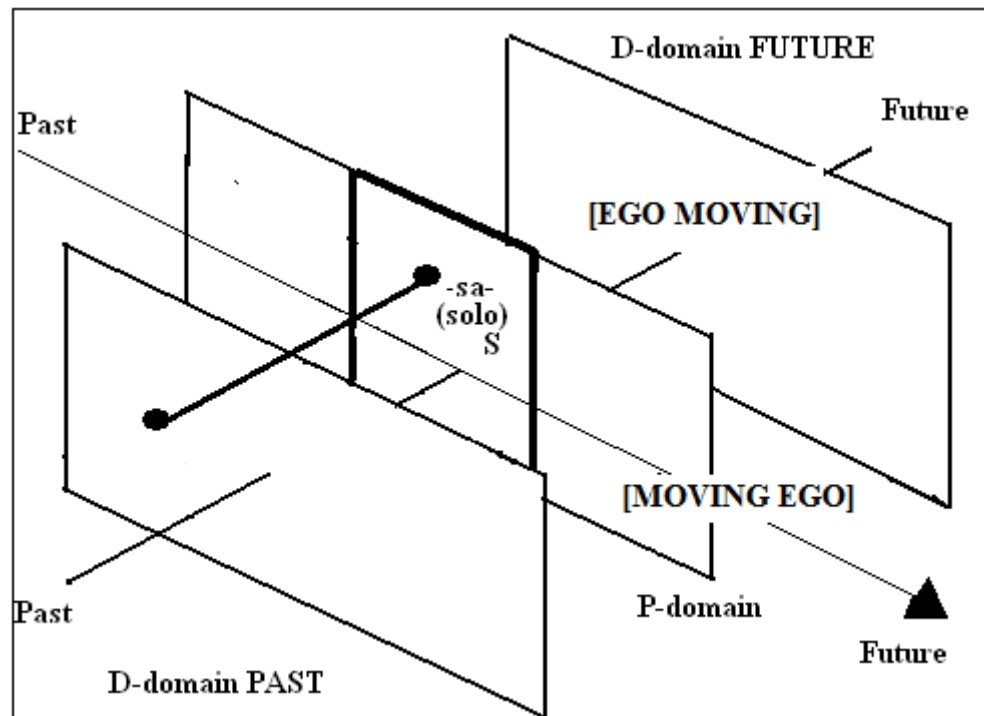


Fig. 9.16 The PERSISTIVE *-sa-* and *solo*

The aspect marker *-sa-* is located in the Privileged domain at S in Figure 9.16 and I have placed the morpheme alongside one of two points in time (represented by small dark discs) and connected by an unbroken line. This arrangement illustrates that with *-sa-* encoding PERSISTIVE aspect, two separate time units are connected and the activity is not interrupted as represented by the unbroken line. The time point in the Privileged domain is located at S and is connected by the unbroken line to the past Dissociated domain. I have shown *solo* in parentheses positioned by the morpheme *-sa-* to indicate that its presence is optional and when the aspect marker is present, PERSISTIVE is encoded.

The uninterrupted intervening period which is represented by the unbroken line running parallel to the [EGO MOVING] timeline connects the past Dissociated domain with the deictic centre (S in the Privileged domain) along which EGO is moving from the past to the present. Although this covers a period of six months which was not spent in uninterrupted studying the intervening period is cognitively perceived as being so as discussed in section 4.3. The data reported in chapter four was not conclusive and it is not certain whether *-sa-* encodes uninterrupted situations in all cases as was shown in the two conflicting scenarios (reading and greeting) in that chapter.

B&K's model has tertiary timelines and in Figure 9.16 I show the [EGO MOVING] timeline intersecting the Privileged domain as although the sense of the expression is PERSISTIVE and connects the two visits, six months apart, as described above, studying is also continuing in the present and this is represented by movement along the [MOVING EGO] timeline within the Privileged domain (called tenor in the model) as EGO perceives himself as studying as he moves through time.

In this example the [EGO MOVING] model can be thought of as representing the holistic experience of studying (the entire process from registration to graduation) which connects Privileged and Dissociated domains whereas the [MOVING EGO] model and tenor is the contemporaneous, situated act of studying (reading, writing-up, preparatory work etc.), so at any one moment EGO conceptualizes himself as moving between and within domains, or engaged within a process that is currently occurring. This interplay of cognitive models and domains representing EGO, time and events is similar to the processes involved in the representation of temporal cognition in Mental Spaces Theory where a lattice of spaces evolves and the temporal primitives of Viewpoint, Focus and Event shift between spaces with established and existing spaces being backgrounded as new spaces are constructed.

The representation of the PERSISTIVE aspect marker in Figure 9.16 as facilitating a connection between the Privileged domain and the past Dissociated domain is significant in terms of Mental Spaces Theory as *-sa-* is effectively acting as a space builder and providing access to a new mental space, where the Privileged domain (which is Speech time, present and deictic centre) is the equivalent of the Base space and the Dissociated domain is the new mental space which is anterior to the Base space. Although the PERSISTIVE aspect marker does not encode tense, by acting as a space builder it can help construct a new anterior mental space. In the scenario depicted by Figure 9.16 the Focus and Event have not diverged and are at the new space (Dissociated domain), and EGO is located in the Present at Speech time (i.e. the deictic centre and 'here and now') as encoded in the expression ('you are still studying') with Viewpoint which remains at the Base space (Privileged domain) as the current situation is being viewed from the perspective of the current fieldwork visit and connecting the two separate time points which are essential features of PERSISTIVE aspect.

Next I consider a second expression involving *solo* which was uttered during my fieldwork on a day when the water was off and the maid Tanele said:

- (9.23) *Solo* *ku-te* *ema-nti* ¹⁰²
 CONJ.*still* SC15-RS.*empty* 6-*water*
 ‘There is still no water’

Expression (9.23) encodes Persistivity and there is an uninterrupted absence of water where the situation described is current, not distant past. *Solo* appears sentence-initial as a conjunction not auxiliary and *-sa-* is not appropriate as it cannot appear in this relative construction which can stand alone, i.e. in answer to the question ‘is there water?’ the reply ‘*ku-te!*’ (‘there is none’) is grammatical. Also this is a ‘strong’ Persistivity situation as something is preventing the water from coming and *-sa-* encodes ‘weak’ PERSISTIVE. ¹⁰³

Figure 9.17 illustrates the need to include both lexical and morphological strategies in these models. The ALTERATIVE and PERSISTIVE aspects, because they encode a linkage between two different time periods, need to show the connection between the two points in time so it is not sufficient to merely show the null morpheme in the Current Time Unit (CTU) of the Privileged domain at the deictic centre to represent that the water is currently off as in example (9.25):

- (9.24) *Ku-te* *ema-nti*
 SC15-RS.*empty* 6-*water*
 ‘There is no water’

¹⁰² Rycroft describes *kute* as a copula relative construction.

¹⁰³ *Solo* is not an aspect marker and so cannot encode PERSISTIVE but indicates Persistivity. I therefore refer to *-sa-* (which is an aspect marker) as encoding ‘weak’ PERSISTIVE (an aspect) and *solo* as indicating ‘strong’ Persistivity (a sense). As both PERSISTIVE and ALTERATIVE aspects have (possibly) grammaticalized from a lexical form (the verb *ku-sa* (‘to dawn’) as discussed in section 4.2) rigid analysis in terms of aspects and senses is not without difficulty.

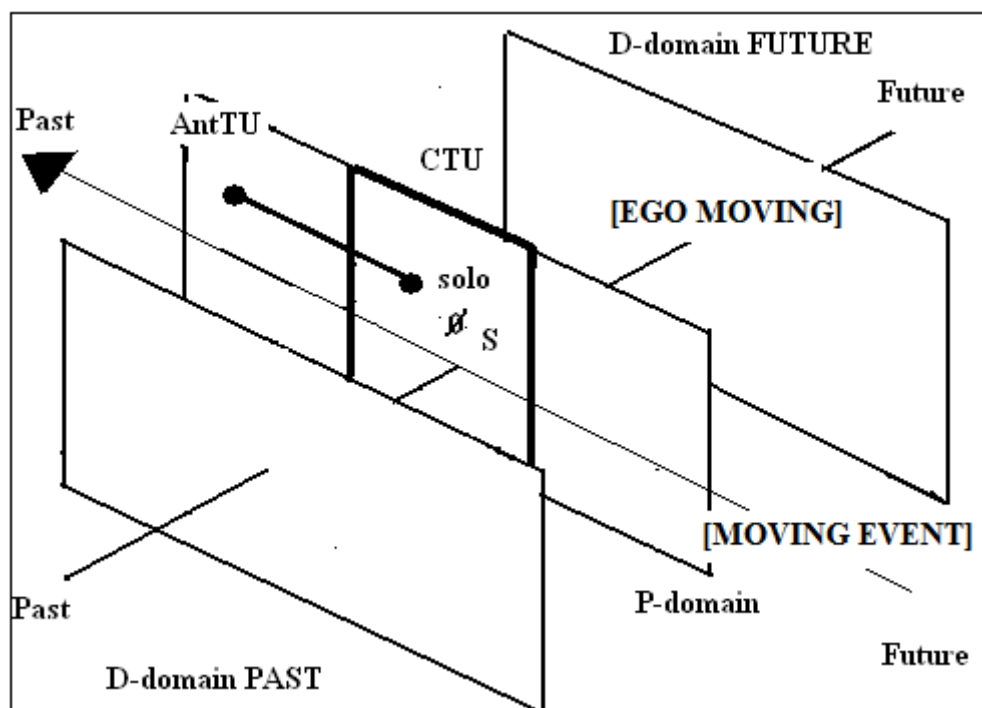


Fig. 9.17 *Solo* indicating 'strong' Persistivity

The sense of expression (9.23) is that at an anterior point in time the water was cut off and it has not returned so its absence has been uninterrupted. This is indicated by *solo* which appears in the model in the current time unit and is connected to the anterior time unit and the S at Speech time by an unbroken line. In (9.22) the two time periods related to two definite fieldwork visits which were being referenced and were explicitly linked. In (9.24) the Focus is on the current time period without water rather than when it went off (as represented by the unconnected null marker in the CTU) but in (9.23) the Focus is on the period from when the water went off until the present although Persistivity is indicated with *solo* and not PERSISTIVE aspect which is encoded by *-sa-*.

The internal domain cognitive model is [MOVING EVENT] as EGO is stationery with time and events (including the return of the water) moving to and past him from the future and eventually the water will return at what will then be his present.

In terms of MST the comments relating to *-sa-* and Figure 9.16 can apply similarly to *solo* and Figure 9.17. The difference is that in B&K's model now the connection is within the Privileged domain (internal domain temporality) so that the term tenor rather than tense is

operative. I would posit that *solo* is acting as a space builder in the same way that *-sa-* was in the previous example, creating a new mental space in the anterior time unit (AntTU) so that the present/Speech time and deictic centre (Base space) (i.e. the current situation of no water) links with the anterior mental space (the time when the water was cut) where Focus and Event have shifted. Viewpoint remains at the Base space in the current time unit (CTU) with EGO (i.e. the situation is viewed from the time when the water remains cut) and the deictic centre, as in both these examples (i.e. still studying and still no water) the activity is persisting at Speech time and it is the special case of the dual-time period aspect that the current activity or event is linked to the earlier time period by either Persistivity being indicated lexically (*solo*) or the PERSISTIVE being encoded morphologically (*-sa-*).

9.6.2 ALTERATIVE aspect in greetings and responses

In this sub-section I analyse a series of greetings and responses which display ALTERATIVE aspectuality and consider how the various markers of the expressions can be represented in the cognitive domains (mental spaces) and what insights their representation in B&K's model adds to our understanding of dual-time period aspectual markers. As in the previous sub-section I consider how their dual-time period aspectuality can be depicted in the dual cognitive domains of the model and which timelines are semantically appropriate to describe their temporal and aspectual characteristics. Having applied B&K's model as an analytical tool I again assess the relevance of that analysis in terms of the principles of Mental Spaces Theory.

During a fieldwork trip, I was greeted:

- (9.25) *U-sa-buy-ile*
 SC2sg-ALT-*return*-DIS.PERF/STAT.PERF
 'You are now back'
 'You have now returned'

In (9.25) the ALTERATIVE marker *-se-* undergoes change to become *-sa-* by analogy in order to occupy TAM slot four. The PRESENT tense is encoded with the PERFECT STATIVE interpretation, and an alternative to this greeting is:

- (9.26) *So-wu-buy-ile*¹⁰⁴
 ALT-SC2sg-return-DIS.PERF/STAT.PERF
 ‘You are now back’
 ‘You have now returned’

Acceptable responses to these greetings are:

- (9.27) *Ngi-buy-ile*
 SC1sg-return-DIS.PERF/STAT.PERF
 ‘I am back’
 ‘I have returned’
- (9.28) *Se-ngi-buy-ile*
 ALT-SC1sg-return-DIS.PERF
 ‘I have **just** returned’
- (9.29) *Ngi-se-buy-ile*
 SC1sg-ALT-return-DIS.PERF/STAT.PERF
 ‘I am now back’
 ‘I have now returned’

My consultant advised that the most appropriate response in context was (9.28) with *-se-* as prefix aspect marker. A reply without *-se-* or with word-medial *-se-* means ‘I have now returned’ or ‘I am now back’ and refers to the previous visit or arrival back but with *-se-* as prefix aspect marker the sense is ‘I have **just** returned’ which refers only to the recent arrival and emphasizes the recent temporal proximity. My consultant offered (9.26) merely as an alternative greeting, and did not attribute the sense of ‘just’ returning and so matching (9.26) and (9.28) as greeting and response. Such an arrangement seems plausible (as both greeting and response have prefixal *-se-*) and further empirical research could be undertaken to establish the position.

The examples (9.27) and (9.29) show the forms can encode both PERFECT sense (‘I have returned’) and STATIVE PERFECT (‘I am back’) but example (9.28) encodes only a PERFECT sense that the event has ‘just’ occurred.

The STATIVE PERFECT shifts tense to the present and B&K’s model can explain this process in terms of the Privileged and Dissociated cognitive domains which represent relative

¹⁰⁴ When *-se-* is followed by a *-u* then *se + u > so-wu*, *se + lu-/bu-/ku- > so-lu-/so-bu-/so-ku-* (Ziervogel and Mabuza, 1976: 122). Also see morpho-phonological analysis in section 5.4.

temporal proximity, certainty and reality. The ALTERATIVE PERFECT represents a proximate, certain event whereas the ALTERATIVE STATIVE PERFECT is distal and less certain despite the tense shift to the present. The two linked time periods are going away and being back (a gap of six months) (stative) contrasted with having just returned some brief unspecified time before Speech time (PERFECT):

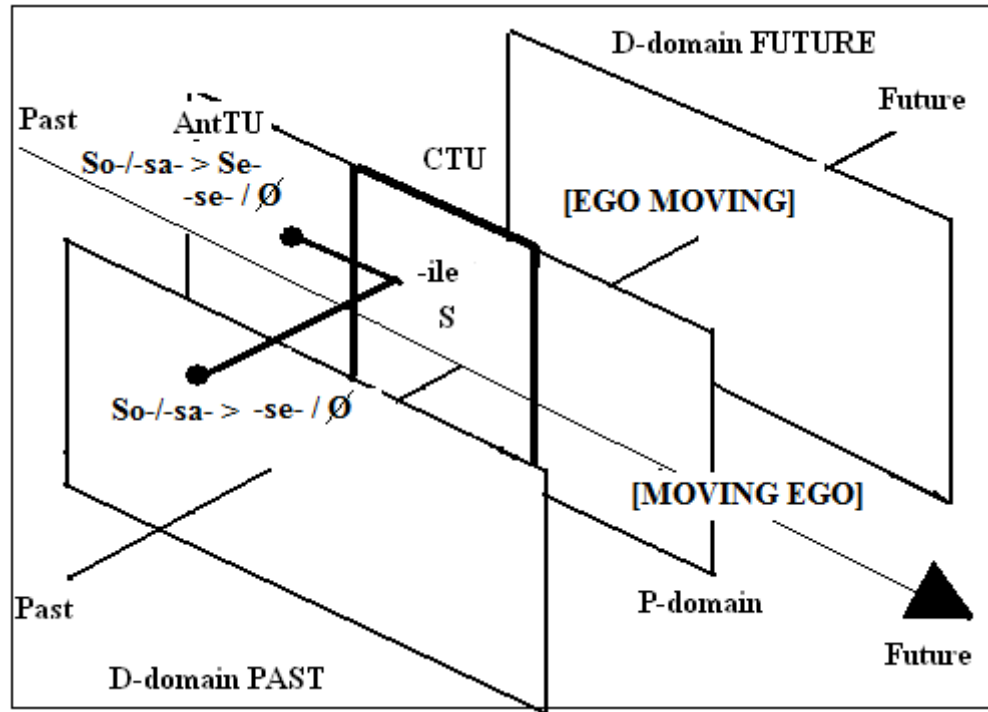


Fig. 9.18 Greetings and responses with the ALTERATIVE

I have shown the pairing of the greetings and responses with the direction indicator (>). The PERFECT marker (*-ile*) is placed at the junction of the timelines so the various senses are connected to the present at Speech time and the deictic centre. The semantic effect of the verb *ku-buy-a* ('to return') and the selection of the aspectual marker refer back to an earlier time which can be in the Privileged or Dissociated domains. The selection of a response is between prefixal *Se-* (9.28) and word-medial *-se-* (9.29) or its absence (9.27) and so morpheme order is a significant feature in addition to the markers themselves as observed in sections 2.5 and 4.5. With *So-/sa-* (greetings) and prefix *Se-* (response) the event is located in the anterior time unit of the P-domain reflecting proximity, certainty and PERFECT tense/aspect (a recent past event with current relevance). With medial *-se-* or no aspect marker context will establish whether or not a stative or PERFECT sense is indicated so they appear in both locations. If stative is indicated, the Event refers to the previous visit

and is pushed further back in time, is less certain and is located in the Dissociated domain. If PERFECT is encoded then the Event is more recent and certain and is located in the anterior time unit (AntTU) of the Privileged domain. If *-se-* is present then ALTERNATIVE aspect is encoded and this linkage is indicated by the continuous line connecting that aspectual marker with the suffix (*-ile*). However in this example as the PERFECT and STATIVE PERFECT are both dual-time period aspects the link is established in any case. A broken line as discussed above is inappropriate as the time between the previous visit or the arrival back and Speech time has been uninterrupted.

The timelines are [EGO MOVING] for the stative interpretation and [MOVING EGO] for the PERFECT so the arrow shows the direction as being from past to future to represent EGO's temporal conceptualization of moving through time from a past when he had just arrived back to a present in which he has returned.

In MST terminology *So-*, *Se-*, *-se-* and *-se-* appearing as *-sa-* are ALTERNATIVE aspect markers in the respective greetings and responses and space builders as described in section 9.6.1 and will provide access to a new mental space that is anterior to EGO's deictic centre at Speech time/present which is located in the Base space. Focus and Event do diverge (as these are PERFECT or STATIVE PERFECT tenses) so only Event is located in the new space and Focus and Viewpoint remain at the Base space. The new space will either be in the anterior time unit (AntTU) of the Privileged domain or the Dissociated domain. The situation is viewed from the present Speech time towards the anterior time point which is the previous visit represented by cross domain temporality (STATIVE PERFECT tense/aspect encoding tense and connecting with the past Dissociated domain) or the time point that is the arrival back represented by internal domain temporality (PERFECT tense/aspect encoding tenor within the Privileged domain).

9.6.3 PERFECT tense/aspect and ALTERNATIVE *-se-*

This section illustrates how the Privileged domain which is divided into current and anterior time units can represent the aspectual nature of the PERFECT tense and the current relevance of past events which are encoded in expressions. Both PERFECT tense and the

ALTERATIVE have dual-time period qualities which can be well represented in B&K's model.

- (9.30) *Awu!* *se-ba-ngi-bul-ele*¹⁰⁵ *mbamba-ke* *nyalo*
 INTERJ.*Oh!* ALT-SC2-OC1sg-kill-PERF ADV.*actually*-ENCL ADV.*now*
 'Oh! they have practically killed me now'¹⁰⁶

The speaker is describing his change of employment status, from having a government post to being dismissed. *Se-* encodes ALTERATIVE aspect and the speaker is claiming he is hearing of his dismissal for the first time as is evidenced by the presence of *-se-*. *Nyalo* encodes temporality (Event time is present) but in any later conversation my consultant advised that *-se-* can be dropped, as announcement of his redeployment is old news although the temporal adverb would be retained. When they are deployed together *-se-* and *nyalo* establish a connection, in this case between being employed and 'being killed'. Expression (9.30) can be represented on a B&K type diagram as follows:

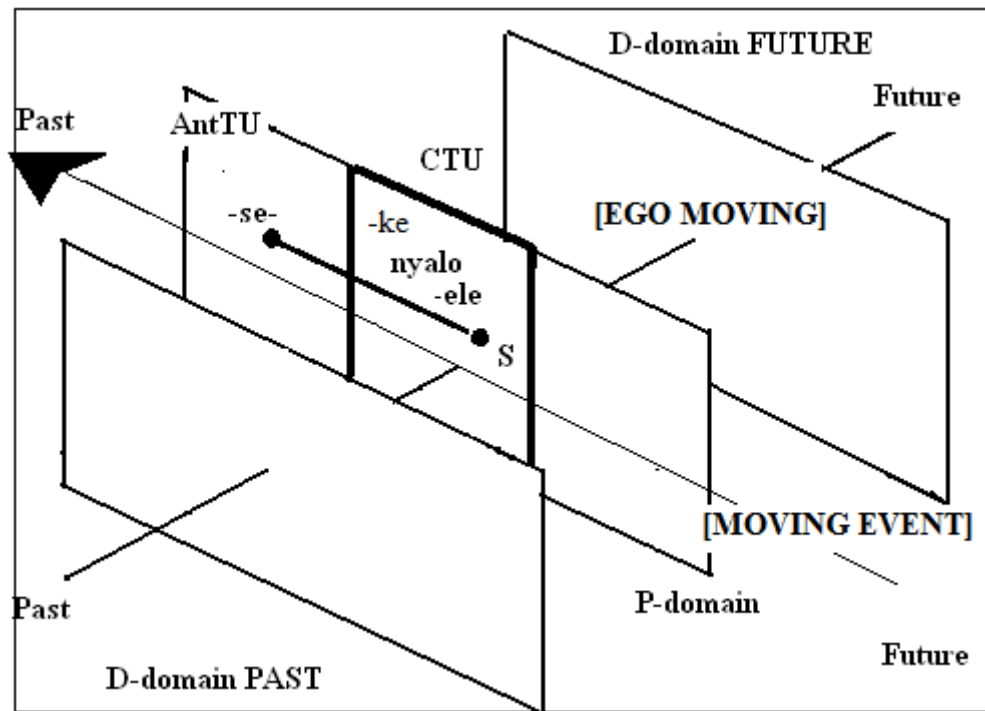


Fig. 9.19 The ALTERATIVE *-se-* and *nyalo*

¹⁰⁵ The PERFECT tense form of *ku-bulal-a* is irregular as shown by the use of the suffix *-ele* in place of the usual *-ile* suffix.

¹⁰⁶ Source: *Times of Swaziland* (issue date unknown) - A government minister had lost his post.

The aspect marker *-se-* is not encoding temporality, this is done by *nyalo* in the current time unit (CTU) which is the quadrangle with thick black lines within the Privileged domain together with the enclitic *-ke* ('now', 'so', 'then') as seen in example (5.25) and repeated here as (9.31). The aspect marker, temporal adverb and enclitic connect the two time periods implicit in the meaning of the sentence as well as emphasising current temporality.

- (9.31) *Se-si-ya-balek-a-ke* *se-yi-ya-si-landz-el-a*
 ALT-SC1pl-DIS.PRES-run-FV-ENCL ALT-SC9-DIS.PRES-OC1pl-follow-APP-FV

i-nyatsi.....
9-buffalo.....

'Then we run away; then the buffalo follows us.....'
 (Ziervogel and Mabuza, 1976: 159)

Se- in (9.30) is encoding a changing situation, POSITIVE ALTERATIVE aspect. The agents *ba-* ('they') have killed the patient *ngi-* ('me') and the activity polarity switch is from negative to positive as before he was dismissed, *ku-bulal-a* ('killed'), he had not been dismissed. *Se-* appears in the anterior time unit (AntTU) because the ALTERATIVE sense is encoded and the PERFECT tense marker *-ele* of *ku-bulal-a* ('to kill') appears in the current time unit in the Privileged domain to indicate tenor (B&K's term for internal domain temporality) which confirms its hybrid tense/aspect categorial status.

This expression was uttered immediately the news of his dismissal was known which is why the ALTERATIVE morpheme *-se-* is so essential to the intended meaning. Only if *nyalo* and *-se-* are both present is the connection made between the announcement and the dismissal. If this expression was repeated later at a time when the dismissal was an established fact, my consultant was clear that the *-se-* morpheme would not be appropriate and would be dropped. At this stage however, the ALTERATIVE marker is encoding an altered state, *nyalo* is retained to encode temporality and the timeline is [MOVING EVENT]. Whilst the sacked minister refers to *ba-* and uses the class 2 subject concord, there is no reference to a specific group of people. The event has come unexpectedly upon him from the future, he has suffered its effects and now the event has passed him by on its way to the past. It still has current relevance (hence the PERFECT tense) and the change is being reported for the first time and is encoded by ALTERATIVE *-se-*. The deictic centre is at Speech time (S).

In this example the ALTERATIVE aspect marker *-se-* and the temporal adverb *nyalo* are together acting as space builders and the process and terminology are as in the previous two sub-sections. What is different with (9.30) is that later when *-se-* may be dropped (as discussed above) then *nyalo* alone will continue to act as a space builder but it will no longer be connecting the two time periods. This illustrates the importance of the assertion being made that dual-time period aspects, like *-sa-* and *-se-* can act as connectors and space builders. It is not all aspect markers that can do this as space builders are generally temporal expressions such as *nyalo* (amongst other types see section 8.2). When the Privileged domain is connected to a future or past Dissociated domain (i.e. the construction of a new mental space), or time units are connected within a cognitive domain, a dual-time period aspect through its inherent temporality acquires the category of space builder. Finally the issue of the enclitic *-ke* must be considered and I would posit that in the expression (9.30) through focus and emphasis it is acting in concert as an essential element in a tri-partite space builder with *-se-* and *nyalo*.

Expression (9.32) was uttered about a fridge after it had been repaired. Temporality is indicated and an altered state from being broken to being repaired. The STATIVE PERFECT encodes the following meanings:

(9.32) *Se-yi-lung-ile*
 ALT-SC9-*in order*-STAT.PERF
 ‘(Now) it is OK’

(9.33) *Se-ngi-suts-i*
 ALT-SC1sg-*be satisfied*-STAT.PERF.FV
 ‘(Now) I am full’

(9.34) *Se-ngi-lamb-ile* *kakhulu*
 ALT-SC1sg-*be hungry*-STAT.PERF ADV.*greatly*
 ‘(Now) I am very hungry’

(9.35) *Se-ngi-nats-ile*
 ALT-SC1sg-*drink*-STAT.PERF
 ‘(Now) I am drunk’

- (9.36) *Se-ngi-nats-ile*
 ALT-SC1sg-drink-DIS.PERF
 '(Now) I have drunk/been drinking'

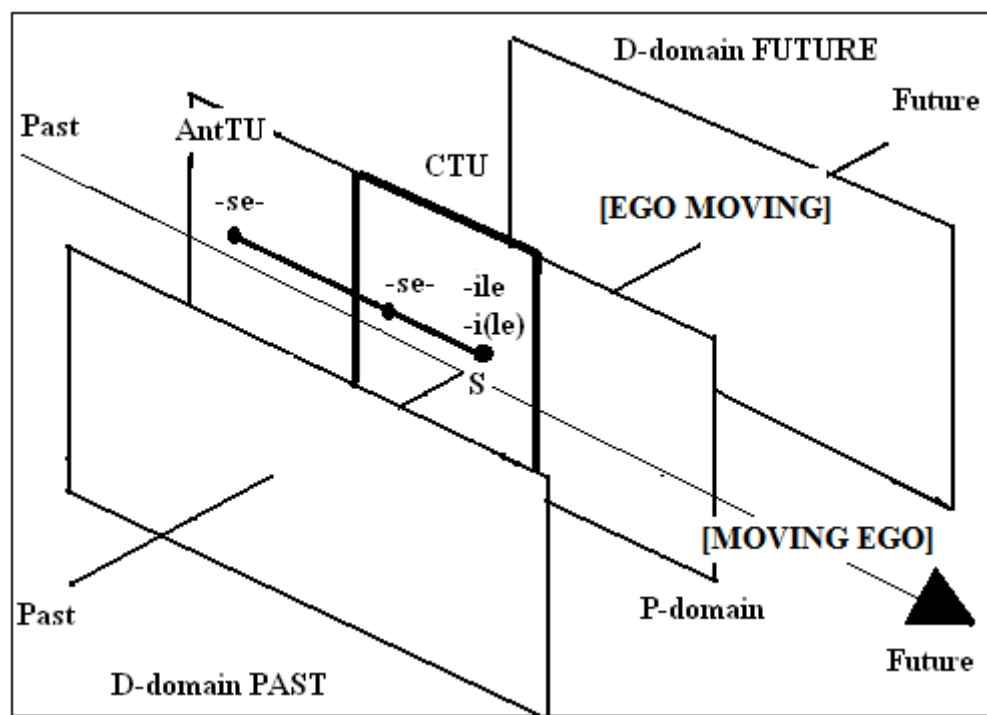


Fig. 9.20 The PERFECT STATIVE

Figure 9.20 represents expressions (9.32) to (9.36), the first four of which are STATIVE PERFECT. The irregular *-i* STAT PERF ending of *ku-suts-a* ('to be satisfied') is located in the current time unit of the Privileged domain along with the morpheme *-se-*. The change of state (from being unsatisfied to being full) is contemporaneous with Speech time (S), the deictic centre. Similarly the regular STAT.PERF endings *-ile* for *ku-lung-a* ('to be alright'), *ku-lamb-a* ('to be hungry') and *ku-nats-a* ('to drink') appear in this section of the Privileged domain. The PERFECT form of the verb *ku-nats-a* is dynamic in expression (9.36) and does not undergo tense shift. The ALTERATIVE morpheme does not encode the temporal sense but the change of situation from not having drunk to having drunk so the morpheme is located in the anterior time unit of the Privileged domain which represents PAST time relative to the deictic centre at S but as it is in the plane of the Privileged domain it has relevance to the present.

The arrow of the timeline points from past to the future, so the [MOVING EGO] model is operative. This is appropriate for all five expressions. The STATIVE PERFECT meanings of

‘Now it is alright, I am hungry, full, drunk’ are all ALTERATIVE. EGO has undergone a change of state from negative to positive in each case and as EGO has experienced these changes he has conceptualised himself as moving through time from the past where he was not hungry, not full, not drunk towards the future where he finds himself in a present contemporaneous state where he is hungry, full, drunk. Similarly with the PERFECT of *ku-nats-a* the cognitive perspective is of conceptual movement from a past where drinking took place to a present where EGO is no longer thirsty because he has drunk.

Some explanation regarding the connecting timeline is necessary to clarify the above application of the model. Although the STATIVE PERFECT forms are shown within the current time unit because of the change of state and the tense shift to PRESENT tense, nonetheless the ALTERATIVE connects the present with an anterior time period when various states had not been entered into i.e. when things were not ‘OK’ and the speaker was not ‘full’, ‘hungry’ or ‘drunk’. This situation is indicated by the dark disc which is located within the current time unit and connected with S (Speech time). For the dynamic PERFECT the same arrangement of the line is appropriate as the dark disc represents the past Event (in the earlier time period) which connects with and has current relevance to the present Speech time. This application of the model illustrates why the ALTERATIVE aspect marker *-se-* is so crucial to the sense of these expressions. It is *-se-* which makes the connection back to the earlier time periods and without it that link is not made:

- (9.37) *A-ngeke* *ngi-dl-e* *ngoba*
 NEG-DEF.VB.unable SC1sg-eat-FV CONJ.because
- ngi-suts-i*
 SC1sg-be satisfied-STAT.PERF.FV

‘I am unable to eat because I am full’

In (9.37) there is no change in state (ALTERATIVE aspect is not encoded) so the sense is that the speaker is too full to eat but the temporality of the situation relates only to the present (Speech time). Compare with the following example:

- (9.38) *Ngi-dl-ile* *li-phalishi* *se-ngi-suts-i*
 SC1sg-eat-DIS.PERF 5-porridge ALT-SC1sg-be-satisfied-STAT.PERF.FV

manje
 ADV.now

‘I have eaten porridge and now I am full’

Example (9.38) illustrates the effect of the ALTERATIVE marker *-se-* in conjunction with the temporal adverb *manje* (‘now’). The change of state is encoded by *-se-* but with the adverb *manje* the connection is made to eating the porridge in the earlier time period, so because the speaker ate porridge, he has become satisfied. It is significant that in (9.37) the deficient verb (*ngeke*) is followed by the subjunctive mood (*ngi-dl-e*) in the PRESENT tense, so two separate time points are not established, whereas, expression (9.38) connects an ANTERIOR/PERFECT tense (*ngi-dl-ile*) with the STATIVE PERFECT (PRESENT tense) (*se-ngi-suts-i*) thus establishing two separate time periods.

Expression (9.37) would locate the STATIVE PERFECT FV (*-i*) in the current time unit of the Privileged domain but it cannot encode the dual-time period aspectuality of the ALTERATIVE, and so would not act as a space builder and construct a new anterior mental space. However, expression (9.38) would link the two time points within the current time unit in the Privileged domain as in Figure 9.20 just as the dual-time period ALTERATIVE requires, and in MST terms construct a new anterior mental space to which Event would locate and so convincingly support the assertion of this analysis that the ALTERATIVE aspect marker *-se-* can act as a space builder.

9.6.4 ALTERATIVE with FUTURE tenses (SIMPLE and IMPERFECTIVE)

This section illustrates how by combining the Privileged and Dissociated domains and using the anterior time unit divisions of those domains the relative tenses can be represented using B&K’s model. This process produces a distinctive L-shaped connector linking the tense/aspect markers (space builders).

The following expression was heard in a restaurant in Mbabane:

- (9.39) *Se-yi-tawu-phum-a*
 ALT-SC9-IMM.FUT-*come out*-FV
 'It will just be ready' Lit: 'It will just come out'

The context is that the food has been delayed and the waitress is saying it will arrive shortly so this expression encodes ALTERNATIVE aspect as the pizza was not cooked and it is about to be cooked (a change of state). The FUTURE marker encodes certainty and an imminent event and the temporal sense of *-se-* is absent here. In (9.39) the link is closer to the present than in (9.40) as in the former the change is on the point of happening, it is imminent but in the latter the change is expected but it is yet to happen. This is the effect of the relative IMPERFECTIVE tense FUTURE IN THE FUTURE where Speech time is present and Reference time is a posterior point when the change will commence or be imminent and Event time is beyond Reference time.

- (9.40) *Yi-ta-b-e* *se-yi-tawu-phum-a*
 SC9-IMM.FUT-*be*-FV ALT-SC9-IMM.FUT-*come out*-FV
 'It will be about to be ready' Lit: 'It will be about to come out'

These two expressions diagram as follows:

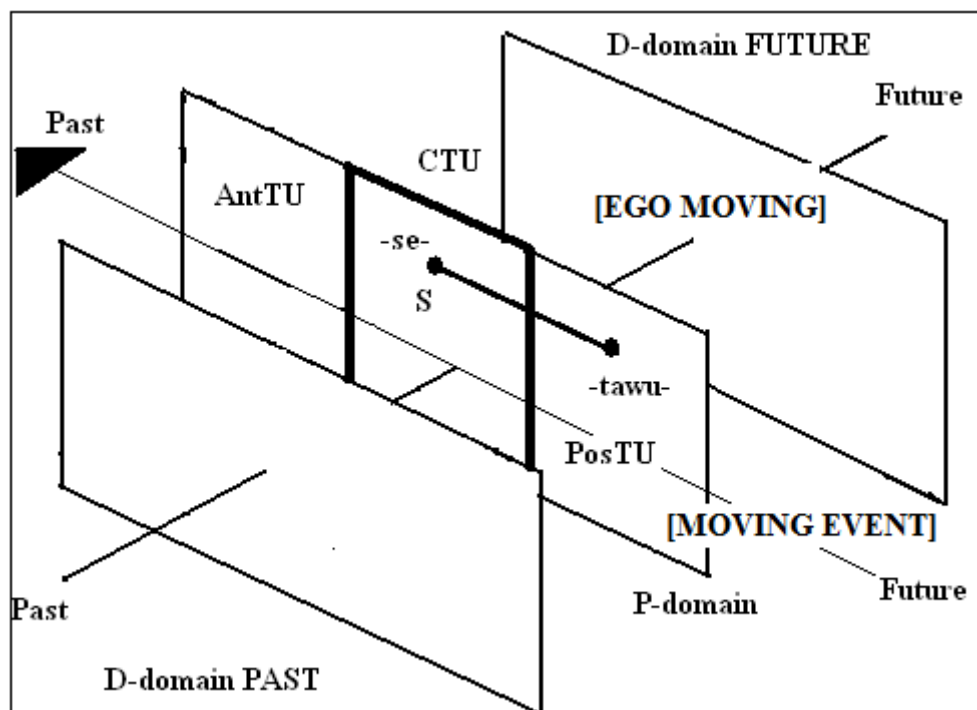


Fig. 9.21 The ALTERNATIVE and the SIMPLE FUTURE

The ALTERNATIVE prefix *-se-* anchors the dual-time period aspect in the present. The event is imminent and certain and so it is located by the IMMEDIATE FUTURE marker *-tawu-* in the posterior time unit of the Privileged domain (internal domain temporality or tenor). The cognitive model operating is [MOVING EVENT] so the arrow of the intersecting timeline is pointing from the future to the past indicating that events are moving towards a stationary EGO from the future.

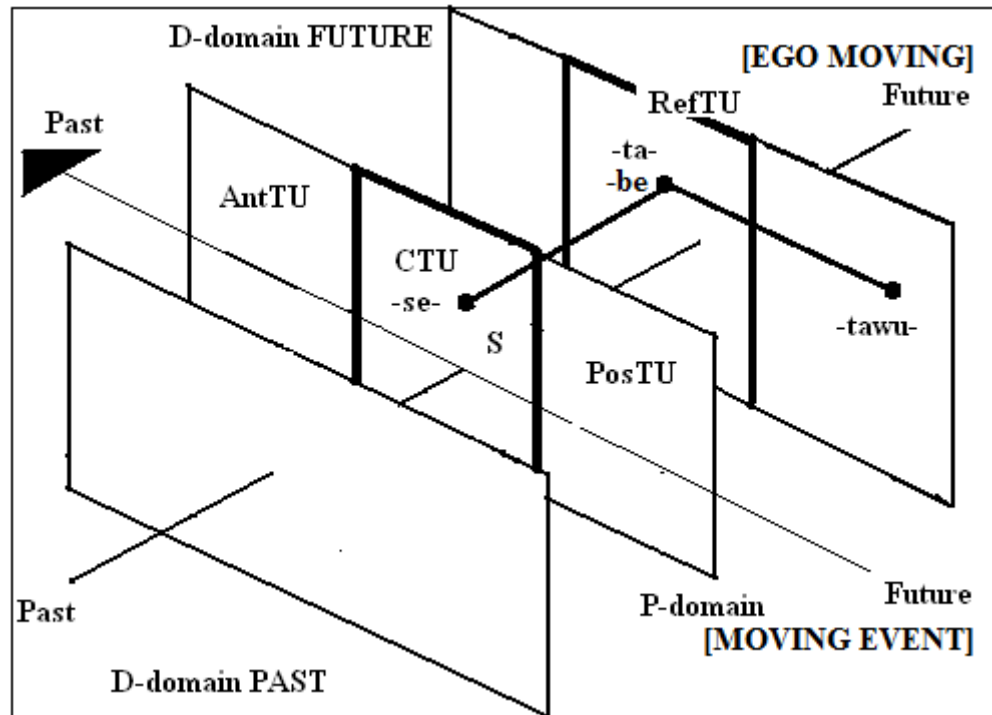


Fig. 9.22 The ALTERNATIVE and the IMPERFECTIVE FUTURE IN THE FUTURE

The dual-time period aspect ALTERNATIVE when combined with a relative tense, results in the L-shaped link seen in Figure 9.22. The ALTERNATIVE prefix in the lexical verb *ku-phum-a* ('to come out') anchors the expression in the present, which is Speech time. The waitress is saying that 'now' the pizza is not about to come out but that situation is going to change. There is uncertainty about when so the change is located in the Dissociated domain where there is a similar heavy-lined quadrangle as in the Privileged domain. It represents the Reference Time Unit and is the point in the future when the pizza will be about to come out. This is encoded by the IMMEDIATE FUTURE marker *-ta-* and the auxiliary *-be* in the auxiliary verb of the compound tense. The event which will happen at a posterior time to Reference time, which in a relative tense is the deictic centre, is also located in the

Dissociated domain on the right (FUTURE) side of the Reference Time Unit. It is encoded by the IMMEDIATE FUTURE marker *-tawu-* of the lexical verb.

As with the SIMPLE FUTURE example the cognitive model operating in Figure 9.22 is [MOVING EVENT] so the arrow of the intersecting timeline is pointing from the future to the past indicating that events are moving towards a stationary EGO from the future. This is relevant because when the Reference time is reached by EGO the scenario will revert to the situation as represented in the SIMPLE FUTURE diagram. It can be said ‘reached by EGO’ because in Figure 9.22 EGO is moving along the [EGO MOVING] timeline towards the Reference point. This is his conceptualization of the situation.

In the real world there is one uni-directional timeline. The future has yet to be experienced and the past represents time which has, so EGO is locked into a present moment between the past and the future where the future becomes present and the present becomes past and the three timelines in the B&K model represent EGO’s temporal cognition, the way he perceives his relationship in time at any given moment. In Figure 9.22, his temporal cognition shifts from [EGO MOVING] to [MOVING EVENT]. Another person may well perceive temporality from a different cognitive perspective in exactly the same situation. This altered perception would result in different cognitive domains from those described and the linguistic encoding of such a different cognitive perspective would require the use of different tenses and aspectual forms. For example the waitress could have said:

- (9.41) *Yi-ta-b-e* *se-yi-phum-ile*
 SC9-IMM.FUT-*be*-FV ALT-SC9-*come out*-DIS.PERF
 ‘It will just have arrived’
 Lit: ‘It will just have come out’

Now the perspective is from the arrival of the pizza. EGO is looking back to the present rather than looking forward from the present as previously. Speech time is the present and Reference time is posterior to the time of it being ready and this perspective is encoded by the FUTURE PERFECT tense. The same situation is being described but now the Reference Time Unit is at the deictic centre posterior to Event time in the Dissociated domain. The ALTERNATIVE prefix connects to the present so the L-shape is again in evidence and the PERFECT marker connects back to the anterior Speech time. The FUTURE PERFECT tense is a

hybrid tense-aspect form which refers to an anterior event that has posterior relevance. The auxiliary *-be* and the IMMEDIATE FUTURE marker on the auxiliary verb are located in the Dissociated domain in the posterior Reference time unit and the PERFECT marker of the lexical verb is located at the interface with the [EGO MOVING] timeline. The diagram would be:

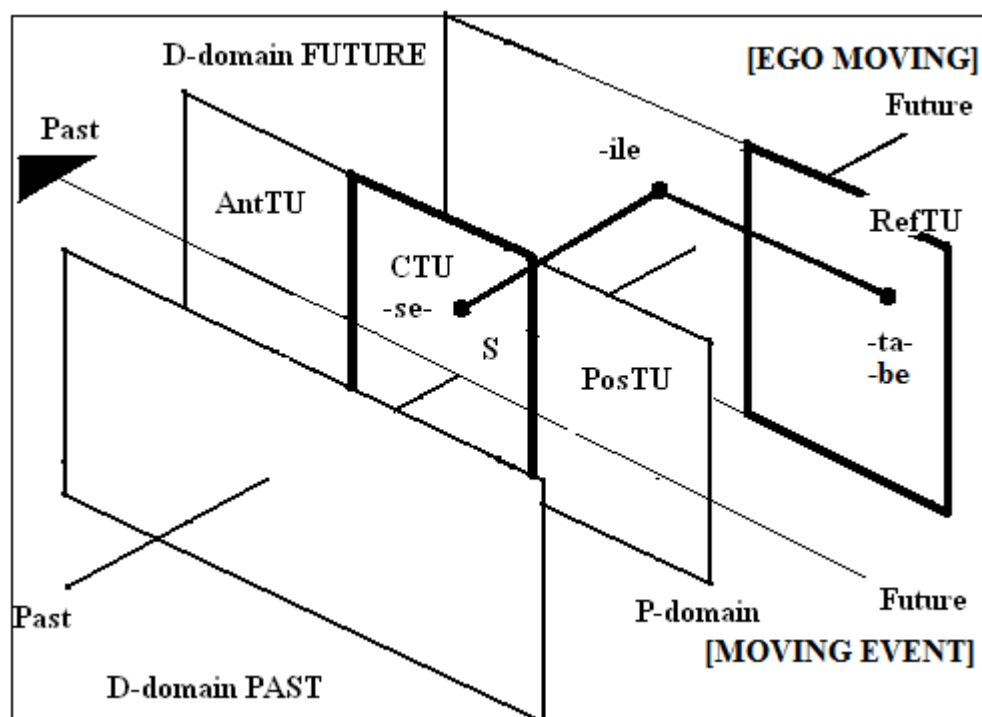


Fig. 9.23 The FUTURE PERFECT

The timelines are as they were in the previous example so EGO always moves along the [EGO MOVING] timeline from the past towards the future. Only in a counter-factual scenario could EGO conceptualise himself as moving backwards through time. The [MOVING EVENT] timeline is operative as stationary EGO is conceptualising the pizza arriving at his table (the event) in whatever time elapses between the present and Event time. In Figures 9.22 and 9.23 I have shown time's arrow on the Privileged domain. Arguably it could appear on the Dissociated domain but I have taken the view that it would not be possible to have timelines in cognitive domains moving in opposite directions in any individual scenario (so an arrow on one is an arrow on all).

Despite being semantically the most complex of the scenarios in the application of B&K type models because of the L-shaped link or connector and the appearance of Reference

time units in the Dissociated domain, the relative tenses are straightforward when interpreted in terms of mental spaces. The reason for this is that as a tense/aspect hybrid the FUTURE PERFECT tense (9.41) acts as a space builder because in common with the dual-time period aspects (PERSISTIVE and ALTERATIVE) it connects two separate time periods. With regard to the relative IMPERFECTIVE, the FUTURE IN THE FUTURE (9.40) which encodes INCEPTIVE through the tense/aspect marker *be-* that form is equally unproblematic as, like the FUTURE PERFECT, it is a tense/aspect hybrid encoding FUTURE tense and INCEPTIVE aspect and so naturally acts as a space builder and can construct the required new mental space.

In Figure 9.23 illustrating FUTURE PERFECT the Focus and Event diverge with only Event moving to the new space so the Base space is at S and EGO's locus but the deictic centre is now located in the Reference time unit in the Dissociated domain. Focus is located in the Reference Time unit and Event is in the new space created in the anterior time unit in the Dissociated domain. Viewpoint remains in the Base space which is situated with EGO at Speech time in the Privileged domain. This arrangement contrasts with the IMPERFECTIVE FUTURE IN THE FUTURE where Focus and Event do not diverge but are both located in the new space created in the posterior time unit adjacent to the Reference time unit of the Dissociated domain in Figure 9.22.

9.6.5 Counter-expectational ALTERATIVE and 'strong' PERSISTIVE

Mental spaces can accommodate counter-expectational interpretations:

- (9.42) *U-se-ta-li-fundz-is-a* *yini* *leli-banga?*
 SC2sg-PERS-IMM.FUT-OC5-learn-CAUS-FV INTRG DP5-class
 'Are you still going to take the class?'

The sense of (9.42) which is repeated from chapter four example (4.54) is that the lecturer has a sore throat which is an obstacle preventing her from taking the class and so *-se-* encodes 'strong' PERSISTIVE if the speaker thinks that the lecturer will indeed take the class i.e. that there will be a positive outcome. However as was posited in chapter four the sense may actually be ALTERATIVE ('are you no longer going to take the class?') in which case

the speaker is signalling a counter-expectational (negative) outcome. B&K's cognitive model can represent and distinguish between these two alternative interpretations.

In the terminology of Mental Spaces Theory, the aspect marker *-se-* and the future tense marker *-ta-* are space builders, and they set up a Belief space relative to the Base space. The Event ('taking the class') and Focus are located in the new space with Viewpoint situated at the Base space. The lecturer and the class event are the counterparts which are located in the Base and Belief spaces. The access principle ensures that connectors are established between the counterparts, and the Optimization Principle ensures that information in the Base space is transferred to the Belief Space. The aspect marker *-se-* encodes either the 'strong' PERSISTIVE ('still') or the negative ALTERNATIVE counter-expectational ('no longer') interpretation and in the case of the latter the Optimization Principle is blocked so the conflicting information is restricted to the Base space. This prevents the speaker from believing that the lecturer will both take the class despite her cold (PERSISTIVE) and not take the class (ALTERNATIVE).

Figure 9.24 represents the 'strong' PERSISTIVE interpretation:

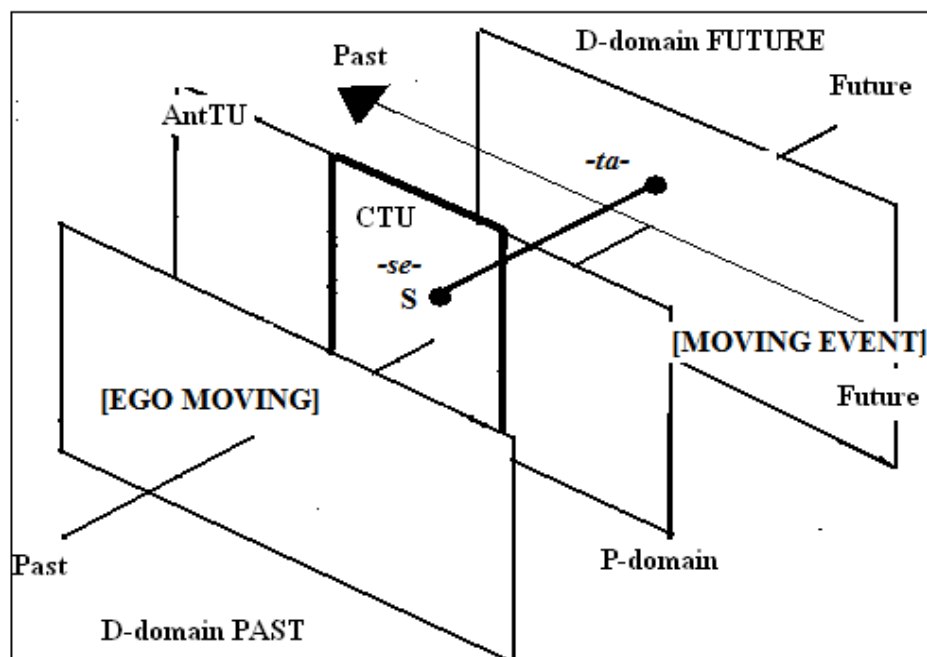


Fig 9.24 'Strong' PERSISTIVE

The two timelines in play are [EGO MOVING] as the speaker (EGO) sees himself as moving through time to the future event which is the class event to be held. He expects that the lecturer will overcome the obstacle of her cold and take the class so the aspect marker *-se-* and the future tense marker *-ta-* are connected by the unbroken line running between the two dark discs in the Privileged and Dissociated domains. The future marker is situated in the Future Dissociated domain which is the new Belief space where Focus and Event which have not diverged have moved. S is situated in the Current time unit of the Privileged domain and marks Speech time, the deictic centre and the Base space where Viewpoint is located. EGO also conceptualizes the class event arriving from the future and this is represented by the [MOVING EVENT] time line which passes through the Future Dissociated domain and so when EGO arrives at the interception point, the class event will be current and the Dissociated and Privileged domains will merge into the Current time unit of the (present) Privileged domain. The key element in this B&K diagram is the connection between the two domains signifying that EGO's perception is that the class will take place. In MST terms the access principle is operating and has not blocked the Optimization Principle from connecting the counterparts in the Belief and Base spaces.

Fig 9.25 represents the second interpretation of (9.42) which is counter-expectational:

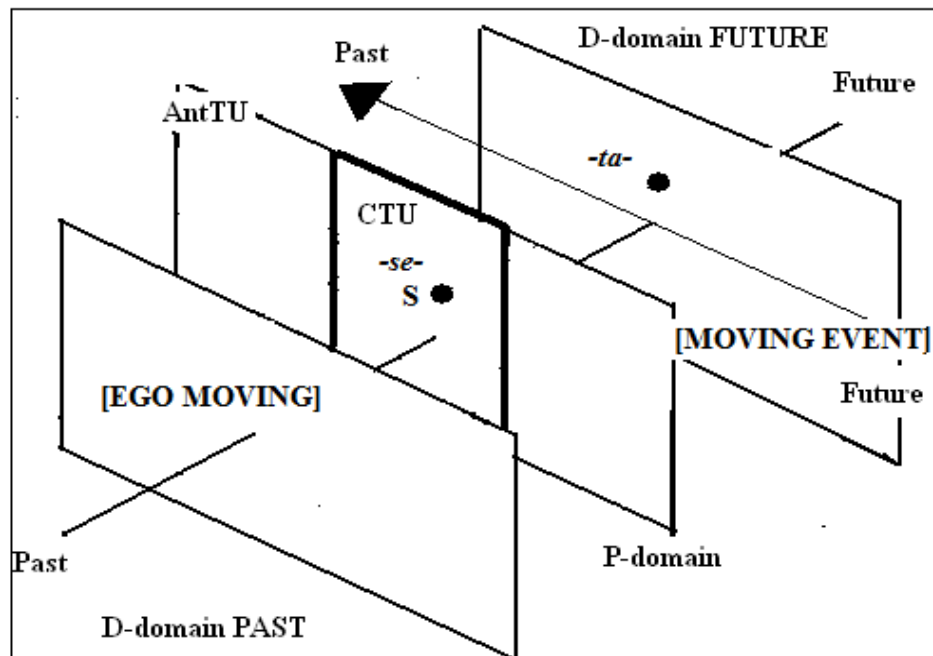


Fig. 9.25 Counter-expectational – negative ALTERNATIVE

In Figure 9.25 the arrangement is similar to Figure 9.24 but crucially there is no connection between *-se-* and *-ta-* across the Privileged and Dissociated domains because EGO does not expect that the class will be held because of the lecturer's cold so the counterparts in the Belief and Base spaces are not connected because the access principle has blocked the Optimization Principle representing EGO's conceptualization of the class event taking place. This application of B&K's model illustrates an important aspect of the three timelines. The model reflects only EGO's conceptualization of the temporal situation not reality. In Figure 9.25 EGO conceptualizes himself moving towards the future event (the class). He also conceptualizes the event occurring at a certain future time as represented by the dark disc in the Dissociated domain on the [MOVING EVENT] timeline, but there is also a disconnection in his temporal cognition and he does not expect the class event to actually take place. The access principle prevents the model from representing EGO as believing both that the event will and will not take place and so blocks the connectors between the Privileged domain (Base space) and the Dissociated domain (Belief space).

9.7 Summary

In this chapter I have reviewed the various cognitive models for time used in the theoretical perspectives taken by this analysis. I have described the two EGO-centred models, [MOVING TIME] and [MOVING EGO] and the [TEMPORAL SEQUENCE] model. In order to describe and understand these models I have looked at lexical concepts and the two types of alignment which feature cross-linguistically, mirror and in-tandem alignment. With the use of several siSwati expressions I have illustrated how these models operate in siSwati temporal cognition and a sub-section discussed the relevance of these models for the grammaticalization of FUTURE markers.

Following the introductory section describing the standard cognitive models I have reviewed the cognitive model developed by B&K which incorporates two domains (Privileged and Dissociated) and three timelines, which they call [MOVING EGO], [MOVING EVENT] and [EGO MOVING]. Their case study of a Bantu language (A62) Ngunu spoken in Cameroon was used for the purpose of describing this cognitive model. There are three organising principles which have been reviewed and discussed and I have described the siSwati TAM system and applied B&K's model to the analysis of siSwati tense markers. I

have discussed the practical application of their cognitive model to data gathered in the field and observed that verbal forms taken out of context do not necessarily act as reliable indicators of temporal cognition.

This was followed by a description of how B&K's cognitive approach can be practically applied to the data gathered during my fieldwork. In five sub-sections the examples were applied towards understanding PERSISTIVE, ALTERATIVE and IMPERFECTIVE aspect in siSwati and I have described how their respective markers all act as space builders when the various scenarios are analysed from the perspective of MST and the explanatory power of the B&K model enables this case to be made in a clear and convincing manner. Botne and Kershner's model has been shown to be extremely effective and helpful in understanding the dual-time period aspects which are proposed and described in this analysis. The relative tenses were usefully represented and analysed using the 'L' shape connectors, and by positioning markers in the appropriate time units in the Privileged and Dissociated domains accurately reflected the different cognitive temporal perspectives of the PERFECTIVE and IMPERFECTIVE aspects encoded in the compound tenses. The final sub-section analysed a counter-expectational expression and illustrated that the alternative interpretations of positive 'strong' PERSISTIVE and negative ALTERATIVE could be represented and in doing so demonstrated the blocking role of the access principle.

10. Conclusions

In this study I have identified and analysed three aspects in siSwati. A distinctive characteristic common to two of them is that they link two separate time periods and so I have described them as dual-time period aspects. One is the PERSISTIVE which is an aspect already well-documented and studied cross-linguistically in the Bantu languages and other groups. The other I have analysed as the ALTERATIVE which is a new term I have applied to an aspect not formerly recognized in linguistic studies. Both are morphologically encoded in siSwati. The PERSISTIVE is encoded by the morpheme *-sa-* and the ALTERATIVE by *-se-*.

The ALTERATIVE aspect links two separate time periods and features an activity polarity switch (same activity) or an activity switch (different activity). It differs from the INCEPTIVE which describes the commencement of an activity or entering into of a state but relates to a single time period. The PERSISTIVE aspect also links two separate time periods in which an activity is persisting in both, or not persisting in both. It differs from the PROGRESSIVE which describes a continuing, usually current, situation in a single time period. The PROGRESSIVE has not grammaticalized in siSwati.

The PERSISTIVE has two distinct senses differentiated by whether external forces are impacting or not. A PERSISTIVE aspect describing a situation which continues un-opposed is 'weak', and one that surmounts obstacles to continuation is 'strong'. The *-sa-* aspect marker encodes 'weak' PERSISTIVE. I have posited that rather than a binary division, situations are classified as expressing 'weakness' or 'strength' on a graded cline and speakers judge the appropriate strategy for expression. PERSISTIVE situations can be connected by intervening periods in which the persisting activity or event is either interrupted or uninterrupted. The ALTERATIVE has a distinct sub-sense which encodes Exclusivity.

The aspect markers *-sa-* and *-se-* are in complementary distribution in the same verb form and the PERSISTIVE and ALTERATIVE aspects are semantically mutually exclusive and do not normally co-occur, although when describing multiple or sequential events they can appear in the same expression and siSwati has various strategies for accommodating such

situations. The PERSISTIVE and ALTERATIVE aspect markers *-sa-* and *-se-* do not appear in the same verbal form but can appear together in the same predicate.

SiSwati is an agglutinative language and the verbal form consists of nine slots. The PERSISTIVE aspect marker *-sa-* which can only perform the role of aspect marker would normally occupy TAM slot four. The ALTERATIVE aspect marker *-se-* which can act as aspect marker and auxiliary normally occupies the initial slot when aspect marker and is word-final when auxiliary. Both morphemes undergo phonological change in certain environments and non-verbal constructions and stative verbs are two such environments, with vowel coalescence, latent *i* monosyllabic verbs, idiomatic expressions being others, all of which are described in this analysis.

I have proposed that both *-sa-* and *-se-* have grammaticalized from the verb *ku-s-a* ('to dawn') and it is a prediction of this analysis that the auxiliary and conjunction *solo* is taking over the functions of *-sa-* as the canonical aspect marker of the PERSISTIVE and the present analysis shows that this development is likely to continue. *Solo* is semantically versatile and can indicate Persistivity ('still') and Alterativity ('since') depending on context.

I have posited that in siSwati temporal cognition change (ALTERATIVE) is more salient than continuity (PERSISTIVE). As stative situations tend to be described by adjectives and dynamic situations by verbs, it is not surprising that there are only a dozen or so adjectives in the siSwati lexicon. Relative constructions and verbal constructions are used almost exclusively as 'adjectival' modifiers. I have suggested that there is also a preference in siSwati temporal cognition for the MOVING TIME cognitive model over MOVING EGO and that the former is more likely to feature ALTERATIVE aspect and the latter PERSISTIVE. If empirical research confirmed this to be the case an integrated model of dual-time period aspectuality and temporal cognition would be established.

The INCEPTIVE is the third aspect with which this study is concerned and I have identified a group of morphologically encoded absolute and relative tenses which display IMPERFECTIVE or PERFECTIVE aspect. These are a set of compound tenses encoded by the morpheme *be-* which is the PERFECT form of the copula verb *ku-b-a* that has grammaticalized to become a tense/aspect marker that encodes PAST tense and the

INCEPTIVE and CONDITIONAL which are both IMPERFECTIVE aspects . SiSwati has morphologically encoded PERFECT tenses; the PERFECT is an absolute ANTERIOR tense and the PLUPERFECT and FUTURE PERFECT are relative PAST and FUTURE tenses so I am proposing that siSwati also has morphologically encoded IMPERFECTIVE and PERFECTIVE tenses:

FUTURE IN THE PAST	Relative
FUTURE IN THE PRESENT	Absolute
FUTURE IN THE FUTURE	Relative

The compound tenses with *be-* can appear as either contracted or analytic forms and the latter are composed of an auxiliary and lexical verb. Their sense can be INCEPTIVE or CONDITIONAL and their aspectuality is determined by *be-* acting as tense/aspect marker and/or auxiliary. The structure of these compound forms will determine Event outcome (negative or positive) and certainty of outcome. I have investigated the analytic and contracted forms in these relative tenses and whilst the standard grammars suggest that the contracted forms are more common in everyday speech, they are in transition with both forms being used and with different semantic profiles.

Two theoretical perspectives have proved to be effective in analysing siSwati temporal cognition in the area being studied (morpho-semantics of aspectuality) and they are Mental Spaces Theory (Fauconnier, 1985) and Botne and Kershner's cognitive model for analysing Bantu TAM systems (Botne and Kershner, 2008). Both perspectives displayed considerable descriptive power and in terms of explanatory force both MST and B&K's model proved to be helpful. B&K type cognitive models were adept at explaining how the ALTERATIVE and PERSISTIVE aspect markers operate as dual-time period aspects in cognitive domains (and hence as space builders and connectors in mental spaces) in a variety of circumstances including, with conjunction/auxiliary *solo* ('still'), temporal adverbs such as *nyalo* ('now'), greetings and responses, PERFECT, STATIVE PERFECT, IMPERFECTIVE tense/aspects (both relative and absolute) and counter-expectational constructions. MST was also found to be useful in describing and analysing the role of conjunctions and connectives and provided useful insights into their functionality.

My methodology was generally effective but weaknesses were identified. The consultant discussions built on the formal interview program and were more productive and reliable. The elicitation tools (pictograms, time reference symbols and timeline sheets) did not perform as well as expected but they provided an impartial medium in which to conduct the interviews with my bilingual informants, although for many they were confusing and there was a high proportion of problematic responses to the pictograms.

In post fieldwork review I re-analysed the siSwati TAM system, eliminating the EXCLUSIVE as a distinct aspect and re-classifying it as a sub-sense of the ALTERATIVE but the fact that the INCEPTIVE and CONDITIONAL aspects had not been included in the interview process proved to be a significant omission. Nevertheless a considerable amount of useful data was gathered although not all of it is satisfactorily explained (for example, the reduplication of the ALTERATIVE and PERSISTIVE aspect markers and the phonological change displayed by both morphemes in a variety of environments).

One feature of the interview methodology is the disparity in the responses between the three data streams which were gathered. Although I have not made a detailed statistical analysis, the proportion of interview pictograms which produced three identical responses from three separate informants was low but that performance should be viewed in the light of the large number of interviews and extensive and diverse range of the informants which would inevitably result in considerable variation in data.

That the pictogram methodology performed with difficulty in the INDICATIVE mood, suggests that with the even more semantically challenging moods such as the PARTICIPIAL or POTENTIAL, the system might enjoy limited success. Another weakness of the pictogram series of interviews was that forms were targeted out of context. Although the original research objectives did not indicate that context would be crucial, in analysing the results and evaluating the methodology, a more contextual approach would have been a significant improvement.

Finally tone is an issue that because of its undoubted relevance and influence justifies a higher profile.

10.1 Re-analysis of the siSwati TAM system

In this section of my conclusions I describe how the PERSISTIVE and ALTERATIVE aspects are accommodated within the siSwati TAM system. I have distinguished between the PERSISTIVE and PROGRESSIVE aspects which are often confused in the standard grammars and shown the latter to be not morphologically encoded in siSwati. I have introduced a new aspect which I classify as ALTERATIVE and described how this makes the EXCLUSIVE redundant as a distinct aspect in chapter five. I have re-analysed the ‘continuous’ tenses formed with the auxiliary, tense/aspect marker *be-* as a range of absolute and relative compound tenses encoding PERFECTIVE and IMPERFECTIVE aspect in chapter six. I have listed brief definitions and descriptions of the major terms in chapter two which is an overview of siSwati structure. Figure 10.1 illustrates my analysis and demonstrates how the two aspects, the PERSISTIVE and the ALTERATIVE assimilate into this structure and the PRESENT tense, INDICATIVE mood forms are used as typical examples. An event can be aspectually described as BASIC, PERSISTIVE or ALTERATIVE. The BASIC category is unmarked aspectually and context at the level of the sentence may indicate temporality, Habituality, or Progressivity etc.

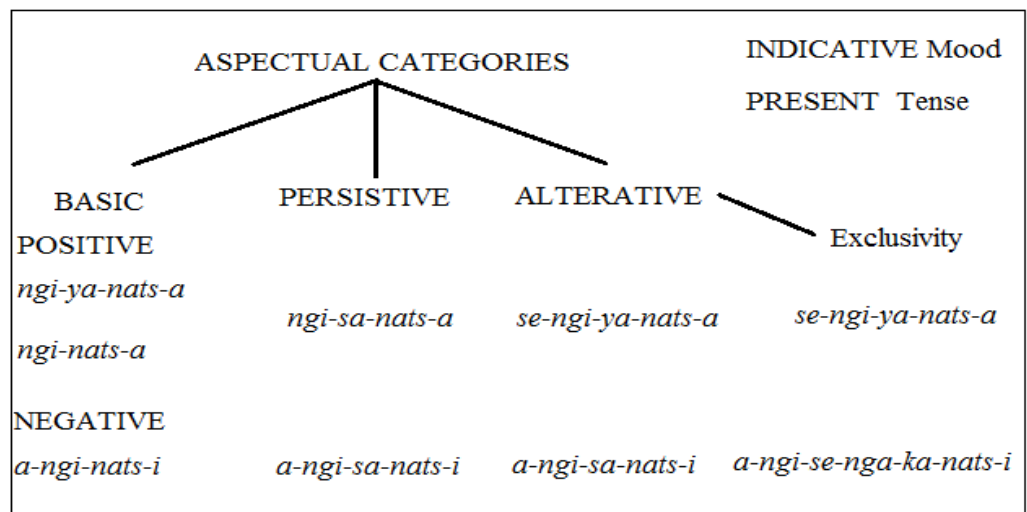


Fig. 10.1 BASIC, PERSISTIVE and ALTERATIVE aspects in the siSwati TAM system

The aspects conjugate with positive and negative polarity and are morphologically encoded across a wide range of tenses and moods. The following are the principal forms in the PRESENT INDICATIVE from Figure 10.1 glossed and translated:

- (10.1) *Ngi-ya-nats-a*
 SC1sg-DIS.PRES-*drink*-FV
 ‘I drink’ BASIC Disjoint
- (10.2) *Ngi-ϕ-nats-a*
 SC1sg-CON.PRES-*drink*-FV
 ‘I drink’ BASIC Conjoint
- (10.3) *A-ngi-nats-i*
 NEG-SC1sg-*drink*-NEG.FV
 ‘I do not drink’ BASIC NEGATIVE
- (10.4) *Ngi-sa-nats-a*
 SC1sg-PERS-*drink*-FV
 ‘I still drink’ PERSISTIVE
- (10.5) *A-ngi-sa-nats-i*
 NEG-SC1sg-PERS-*drink*-NEG.FV
 ‘I still do not drink’ PERSISTIVE NEGATIVE
- (10.6) *Se-ngi-ya-nats-a*
 ALT-SC1sg-DIS.PRES-*drink*-FV
 ‘I now drink’ ALTERNATIVE
 ‘I already drink’ ALTERNATIVE Exclusivity sub-sense
- (10.7) *A-ngi-sa-nats-i*
 NEG-SC1sg-ALT-*drink*-NEG.FV
 ‘I no longer drink’ ALTERNATIVE NEGATIVE
- (10.8) *A-ngi-se-nga-ka-nats-i*
 NEG-SC1sg-ALT-NEG-PERF-*drink*-NEG.FV
 ‘I do not yet drink’ ALTERNATIVE NEGATIVE Exclusivity sub-sense

The negative ALTERNATIVE (10.7) is encoded by *-se-* which appears as *-sa-*. The sense is ‘I drank previously but do not drink at this time’. The negative PERSISTIVE (10.5) has the sense of ‘I did not drink previously and I still do not drink’. Nurse additionally interprets the negative PERSISTIVE (10.5) as ‘I am still to drink’ as I discuss in section 4.7 (Nurse, 2008: 147). These two forms are semantically and morphologically different but the same phonologically but this difficulty is often avoided by encoding Persistivity lexically with the conjunction *solo*. This thesis asserts that change (ALTERNATIVE) is more salient in siSwati temporal cognition than continuation (PERSISTIVE) and my fieldwork data indicates

that *solo* may be taking over functions of *-sa-* as the PERSISTIVE marker of choice, and the present analysis predicts that *solo* will fully grammaticalize over time. Choice of encoding the PERSISTIVE lexically or morphologically is also dependent on the need to indicate whether the ‘weak’ or ‘strong’ sense is intended.

10.2 Taxonomy of compound tenses in siSwati

My taxonomy of the relative and absolute, PERFECTIVE and IMPERFECTIVE, compound tenses in siSwati follows:

(10.9) PERFECT

ANTERIOR

- (a) *Ngi-nats-ile*
 SC1sg-*drink*-DIS.PERF
 ‘I am drunk’
 ‘I have drunk’

IMPERFECTIVE

FUTURE IN THE PRESENT

- | | |
|---|---|
| <p>(b) <i>Ngi-tawu-b-e</i>
 SC1sg-IMM.FUT-<i>be</i>-FV
 ‘I am about to be drinking’</p> | <p><i>ngi-nats-a</i>
 SC1sg-<i>drink</i>-FV</p> |
| <p>(c) <i>Ngi-ta-b-e</i>
 SC1sg-IMM.FUT-<i>be</i>-FV
 ‘I am about to be drinking’</p> | <p><i>ngi-nats-a</i>
 SC1sg-<i>drink</i>-FV</p> |

These first three forms all have the Reference time contemporaneous with the present or Speech time and are absolute tenses.

(10.10) PLUPERFECT

- (a) *Be-ngi-nats-ile*
 PAST-SC1sg-*drink*-DIS.PERF
 ‘I was drunk’
 ‘I had drunk’

- (b) *Nga-ngi-nats-ile*
 REM.PAST.SC1sg-SC1sg-*drink*-DIS.PERF
 'I was drunk'
 'I had drunk'

IMPERFECTIVE**FUTURE IN THE PAST**

- (c) *Be-ngi-tawu-nats-a*
 PAST-SC1sg-IMM.FUT-*drink*-FV
 'I was about to be drinking'
- (d) *Be-ngi-tawu-b-e* *ngi-nats-a*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-*drink*-FV
 'I was about to be drinking'
- (e) *Be-ngi-ta-b-e* *ngi-nats-a*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-*drink*-FV
 'I was about to be drinking'
- (f) *Be-ngi-ta-b-e* *ngi-tawu-nats-a*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*drink*-FV
 'I would have been drinking'

(10.11) FUTURE PERFECT

- (a) *Ng-i-ta-b-e* *ngi-nats-ile*
 SC1sg-IMM.FUT-*be*-FV SC1sg-*drink*-DIS.PERF
 'I will have been about to have drunk'
- (b) *Be-ngi-ta-b-e* *ngi-nats-ile*
 PAST-SC1sg-IMM.FUT-*be*-FV SC1sg-*drink*-DIS.PERF
 'I would have been about to have drunk'

IMPERFECTIVE**FUTURE IN THE FUTURE**

- (c) *Ng-i-ta-b-e* *ngi-tawu-nats-a*
 SC1sg-IMM.FUT-*be*-FV SC1sg-IMM.FUT-*drink*-FV
 'I will be about to be drinking'

This arrangement yields ALTERATIVE and PERSISTIVE aspectual forms, all morphologically encoded in siSwati.

(10.12) *Ngi-tawu-b-e* *ngi-sa-nats-a*
 SC1sg-IMM.FUT-*be*-FV SC1.sg-PERS-*drink*-FV
 'I am still about to be drinking'

(10.13) *Ngi-tawu-b-e* *se-ngi-nats-a*
 SC1sg-IMM.FUT-*be*-FV ALT-SC1.sg-*drink*-FV
 'I am now about to be drinking'

10.3 Relevance to current understanding and implications for future research

This thesis has wider significance for cross-linguistic recognition of dual-time period aspects, which have so far largely been associated with the PERFECT, but is a more wide spread quality of natural language aspect systems. The dual-time period nature of the PERSISTIVE aspect has not been fully recognised previously and the ALTERATIVE aspect which has been described and analysed in siSwati in this study has relevance for other Bantu and non-Bantu languages. It is to be hoped that dual-time period aspectuality will be the subject of future research in languages other than siSwati.

The extensive data gathered during ninety-eight formal interviews and during many consultant discussions revealed much individual variation. In view of the closely controlled and structured informant interviews this lack of homogeneity is perhaps unexpected, although less so during the more informal, free-ranging consultant discussions. On the other hand my informants comprised an extremely diverse group taken from a range of social and educational backgrounds, ages and geographical areas and in the light of this diversity the heterogeneous responses are not so surprising.

This analysis has shown that both the cognitive model developed by Botne and Kershner and adopted in this study and Mental Spaces Theory developed by Fauconnier and extended with regard to TAM systems by Cutrer have produced useful and worthwhile results and the cognitive approach is validated as a productive method of research (Cutrer, 1994, Fauconnier, 1985, Botne and Kershner, 2008).

Tense, aspect and mood systems have been extensively studied and there is a wide and comprehensive literature devoted to the subject but Bantu languages have not been targeted proportionately to their linguistic importance and so there is a dearth of reliable modern

research data. Furthermore the studies that have been undertaken have not adopted a cognitive linguistic approach and it is hoped that the present analysis makes a useful contribution in both these respects.

References

- BOTNE, R. (2006) On the Cognitive Organisation of Tense/Aspect Systems in Bantu. Paper presented at the conference *Bantu Grammar: Description and Theory*. School of Oriental and African Studies, University of London, 20-22 April 2006.
- BOTNE, R. & KERSHNER, T. L. (2008) Tense and cognitive space: On the organization of tense / aspect systems in Bantu languages and beyond. *Cognitive Linguistics*, 19-2, 145-218.
- BYBEE, J. L. & DAHL, O. (1989) The creation of tense and aspect systems in the languages of the world. *Studies in Language*, 13, 51-103.
- BYBEE, J. L., PERKINS, R. D. & PAGLIUCA, W. (1991) Back to the future. In TRAUGOTT, E. C. & HEINE, B. (Eds.) *Approaches to Grammaticalization*. Amsterdam, John Benjamins, 17-58.
- BYBEE, J. L., PERKINS, R. D. & PAGLIUCA, W. (1994) *The Evolution of Grammar, Tense, Aspect and Modality in the Languages of the World*, Chicago, Chicago University Press.
- CARTER, R. & MCCARTHY, M. (2006) *Cambridge Grammar of English*, Cambridge, Cambridge University Press.
- COLE, D. (1955) *An Introduction to Tswana Grammar*, London, Longmans, Green & Co.
- COMRIE, B. (1976) *Aspect*, Cambridge, Cambridge University Press.
- COMRIE, B. (1985) *Tense*, Cambridge, Cambridge University Press.
- CONTINI-MORAVA, E. (1989) *Discourse Pragmatics and Semantic Categorization in Swahili*, Berlin, Mouton de Gruyter.
- CROFT, W. & CRUSE, D. A. (2004) *Cognitive Linguistics*, Cambridge, Cambridge University Press.
- CRYSTAL, D. (1992) *Dictionary of Language and Languages*, Harmondsworth, Penguin.
- CUTRER, L. M. (1994) *Time and Tense in Narratives and Everyday Language*, San Diego, University of California.
- DAHL, O. (1985) *Tense and Aspect Systems*, Oxford, Blackwell.
- DINSMORE, J. (1991) *Partitioned Representations*, Dordrecht, Kluwer.
- DLAMINI, J. V. (1979) *Luhlelo LwesiSwati (A siSwati grammar book for secondary schools)*, Johannesburg, Shuter & Shooter.
- DOKE, C. M. (1935) *Bantu Linguistic Terminology*, London, Longmans, Green and Co.
- DOKE, C. M. (1947) *Text-Book of Zulu Grammar*, London, Longmans Green & Co Ltd on behalf of the University of the Witwatersrand.
- DOKE, C. M., MALCOM, D. M., SIKAKANA, J. M. A. & VILAKAZI, B. W. (1990) *English-Zulu, Zulu-English Dictionary*, Johannesburg, Witwatersrand University Press.
- EMANATIAN, M. (1992) Chagga come and go: Metaphor and the development of tense-aspect. *Studies in Language*, 16, 1-33.
- EVANS, V. (2004) *The Structure of Time: Language Meaning and Temporal Cognition*, Amsterdam, John Benjamins.
- EVANS, V. & GREEN, M. (2006) *Cognitive Linguistics: An Introduction*, Edinburgh, Edinburgh University Press.
- FAUCONNIER, G. (1985) *Mental Spaces: Aspects of Meaning Construction in Natural Languages*, Cambridge, MA, MIT Press.

- FAUCONNIER, G. & TURNER, M. (2002) *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*, New York, Basic Books.
- FAUCONNIER, G. & TURNER, M. (2006) Mental spaces. In GEERAERTS, D. (Ed.) *Cognitive Linguistics: Basic Readings*. Berlin / New York, Mouton de Gruyter, 303-71.
- FLEISCH, A. (2000) *Lucazi Grammar: A Morphosemantic Analysis*, Köln, Rüdiger Köppe Verlag.
- FLEISCHMAN, S. (1982) *The Future in Thought and Language*, Cambridge, Cambridge University Press.
- GERHARDT, P. (1989) Les temps en nugunu. In BARRETEAU, D. & HEDINGER, R. (Eds.) *Descriptions de Langues Camerounaises*. Paris, Agence de Cooperation Culturelle et Technique and ORSTOM, 315-31.
- GIVÓN, T. (1975) Negation in language: Pragmatics, function, ontology. *Working Papers on Language Universals*. 59-116.
- GOLIGHTLY, W. (2008) *AmaZulu*, London, Quercus.
- GUTHRIE, M. (1967-71) *Comparative Bantu: An Introduction to the Comparative Linguistics and Prehistory of the Bantu Languages*, Farnborough, Gregg International.
- HARLEY, M. (2008) Tense, aspect and mood in Tuwali. In AMEKA, F. K. & DAKUBU, M. E. K. (Eds.) *Aspect and Modality in Kwa Languages*. Amsterdam, John Benjamins Publishing Company, 291-330.
- HILL, C. A. (1978) Linguistic representation of spatial and temporal orientation. *Fourth Annual Conference of the Berkeley Linguistics Society*. Berkeley, UC, Berkeley Press, 524-38.
- HYMAN, L. M. (1980) Relative time reference in the Bamileke tense system. *Studies in African Linguistics*, 11, 227-37.
- JOHNSON, M. (1987) *The Body in the Mind: The Bodily Basis of Meaning, Imagination and Reason*, Chicago, Chicago University Press.
- LAKOFF, G. (1987) *Women. Fire and Dangerous Things: What Categories Reveal About the Mind*, Chicago, Chicago University Press.
- LAKOFF, G. & JOHNSON, M. (1980) *Metaphors We Live By*, Chicago, Chicago University Press.
- MAHO, J. (2003) A classification of the Bantu languages: An update of Guthrie's referential system. In NURSE, D. & PHILIPPSON, G. (Eds.) *The Bantu Languages*. London, Routledge, 639-51.
- MEEUSSEN, A. E. (1967) Bantu grammatical reconstructions. *Africana Linguistica*, 3, 79-121.
- MICKALA-MANFOUMBI, R. (1994) *Essai de grammaire pove*, Bruxelles, Universite Libre de Bruxelles.
- MOORE, K. E. (2000) *Spatial Experience and Temporal Metaphors in Wolof: Point of View, Conceptual Mapping and Linguistic Practice*, Berkeley, University of California.
- MUZALE, H. R. T. (1998) *A Reconstruction of the Proto-Rutara Tense-Aspect System* St. John's Memorial University.
- NICHOLS, P. (2006) The Conceptualization of Time in siSwati. Unpublished MA dissertation. University of Sussex.
- NURSE, D. (2008) *Tense and Aspect in Bantu*, Oxford, Oxford University Press.
- NURSE, D. & PHILIPPSON, G. (Eds.) (2003) *The Bantu Languages*, London, Routledge.
- NYEMBEZI, C. L. S. (1957) *Learn Zulu*, Cape Town, Shuter and Shooter.

- NYEMBEZI, C. L. S. (1970) *Learn More Zulu*, Cape Town, Shuter and Shooter.
- ORWIG, C. (1991) Relative time reference in Nugunu. In ANDERSON, S. & COMRIE, B. (Eds.) *Tense and Aspect in Eight Languages of Cameroon*. Dallas, SIL, 147-62.
- QUIRK, R., GREENBAUM, S., LEECH, G. & SVARTVIK, J. (1972) *A Grammar of Contemporary English*, London, Longmans.
- RADDEN, G. (1997) Time is space. In SMIEJA, B. & TASCH, M. (Eds.) *Human Contact Through Language and Linguistics (D31 Duisberg Papers on Research in Languages and Culture)*. Berlin, Peter Lang, 147-66.
- REICHENBACH, H. (1947) *Elements of Symbolic Logic*, New York, Macmillan.
- ROSE, S., BEAUDOIN-LIETZ, C. & NURSE, D. (2002) *A Glossary of Terms for Bantu Verbal Categories with Special Emphasis on Tense and Aspect*, Munich, Lincom Europa.
- RYCROFT, D. K. (1979) *Say it in siSwati*, Mbabane, Swaziland, Webster Publishers (Pty) Ltd.
- RYCROFT, D. K. (1981) *Concise siSwati Dictionary*, Pretoria, J.L. van Schaik.
- SAEED, J. I. (1997) *Semantics*, Oxford, Blackwell Publishers Ltd.
- SCHADEBERG, T. C. (1990) Schon-nach-nicht-mehr: das Unerwartete als grammatische Kategorie im Swahili. *Frankfurter afrikanische Blätter*, 2, 1-15.
- SMITH, C. S. (1991) *The Parameter of Aspect*, Dordrecht, Kluwer.
- STORY, T. (2007) 4 Rise of the Silver Surfer. *Marvel Comics*. US, Twentieth Century Fox.
- TALJAARD, P. C., KHUMALO, J. N. & BOSCH, S. E. (1991) *Handbook of siSwati*, Pretoria, J.L. van Schaik.
- TALMY, L. (2000) *Toward a Cognitive Semantics, Volume 1*, Cambridge, MA, MIT Press.
- THOMSON, A. J. & MARTINET, A. V. (1990) *Oxford Pocket English Grammar*, Oxford, Oxford University Press.
- TRASK, R. L. (1997) *A Student's Dictionary of Language and Linguistics*, London, Arnold.
- TRASK, R. L. (1999) *Key Concepts in Language and Linguistics*, London and New York, Routledge.
- TRAUGOTT, E. C. (1978) On the expression of spatio-temporal relations in language. In GREENBERG, J. (Ed.) *Universals of Human Language, Vol. 3, Word Structure*. Stanford, Stanford University Press, 370-400.
- TRAUGOTT, E. C. (1999) The rhetoric of counter-expectation in semantic change: A study in subjectification. In BLANK, A. & KOCH, P. (Eds.) *Historical Semantics and Cognition*. Berlin / New York, Mouton de Gruyter, 177-96.
- TURNER, M. & FAUCONNIER, G. (1995) Conceptual integration and formal expression. *Journal of Metaphor and Symbolic Activity*, 10, 183-204.
- TURNER, M. & FAUCONNIER, G. (2000) Metaphor, metonymy and binding. In BARCELONA, A. (Ed.) *Metaphor and Metonymy at the Crossroads: A Cognitive Perspective*. Berlin / New York, Mouton de Gruyter, 133-45.
- VENDLER, Z. (1967) *Linguistics in Philosophy*, Ithaca NY, Cornell University Press.
- WELMERS, W. E. (1973) *African Language Structures*, Berkley, CA, University of California Press.
- ZIERVOGEL, D. & MABUZA, E. J. (1976) *A Grammar of the Swati Language*, Pretoria, J.L. van Schaik.

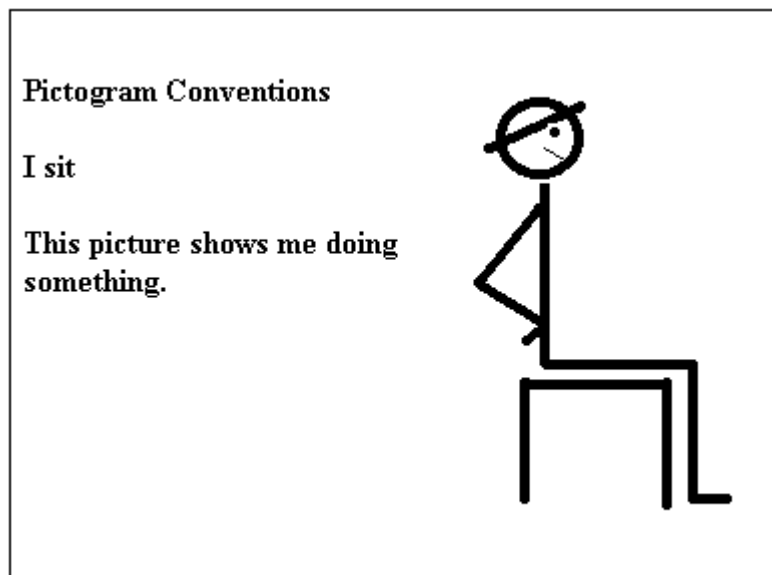
Appendix 1

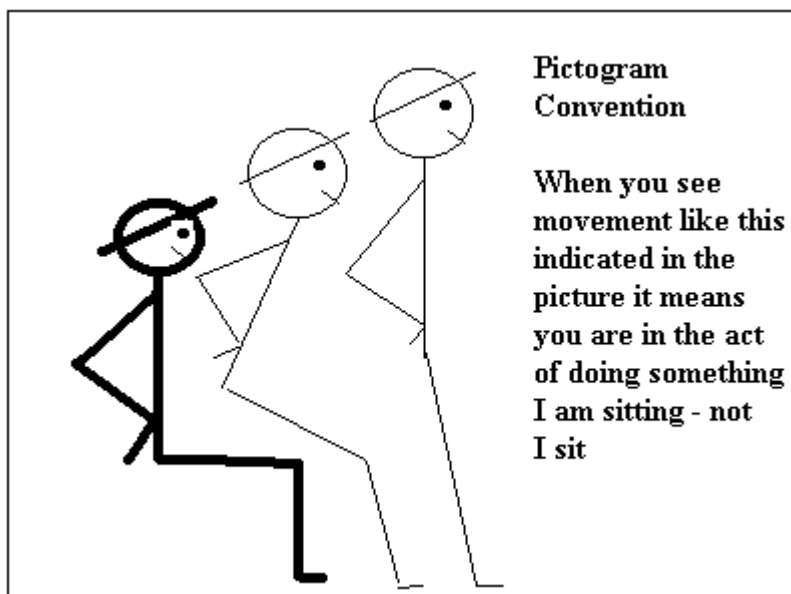
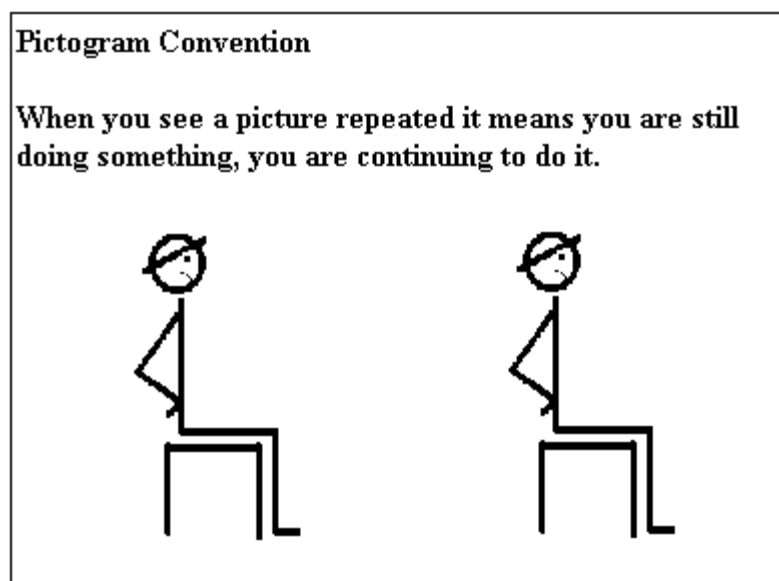
Pictogram Conventions

The following six diagrams were printed out as A4 size posters and affixed to the wall of the interview room. Prior to the first interview with a particular informant I would describe how the conventions worked as described in greater detail in chapter three (Methodology).

Pictogram 1

In the original verbal paradigm adopted during the formal interviews but subsequently re-analysed during post-fieldwork review this pictogram depicts the BASIC NON-PROGRESSIVE:

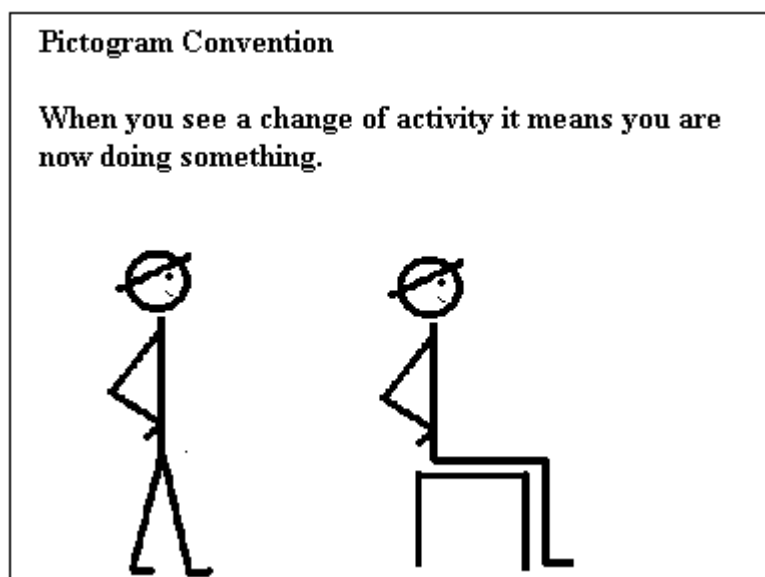


Pictogram 2**BASIC PROGRESSIVE****Pictogram 3****PERSISTIVE aspect:**

Pictogram 4

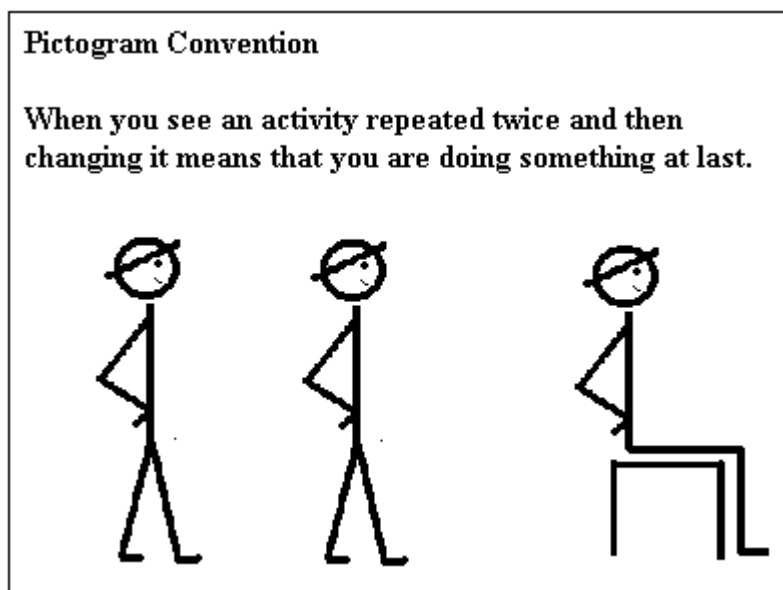
ALTERATIVE

This pictogram can be used to represent negative > positive ('now') or positive > negative ('no longer'):

**Pictogram 5**

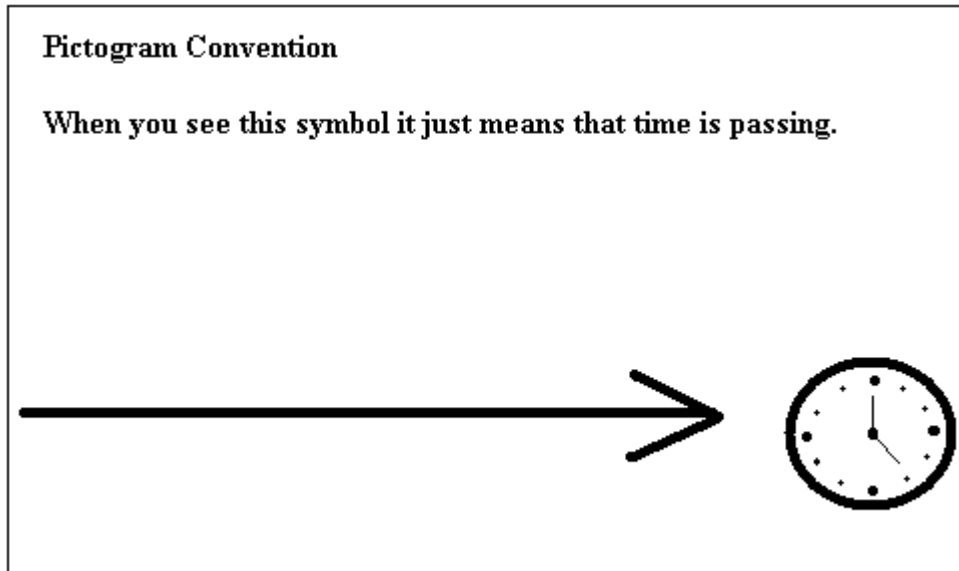
EXCLUSIVE

Subsequently re-analysed as ALTERATIVE Exclusivity sub-sense:



Pictogram 6

This pictogram was designed to make the PROGRESSIVE pictograms conceptually clearer, but had limited success as described in chapter 3 (Methodology):



Appendix 2

In this appendix I include the twelve captioned pictograms designed to elicit the verbal forms of the INDICATIVE mood. The aspects targeted are BASIC, DESISTIVE and EXCLUSIVE (Progressive and non-Progressive, negative and positive). The term DESISTIVE was later changed to ALTERATIVE and the EXCLUSIVE which was formerly analysed as a discrete aspect was re-analysed as a sub-sense of the ALTERATIVE. These pictograms were placed on the Time Line Sheets during interviews to represent Event time as described in chapter three (Methodology). The captioned pictograms were displayed after the uncaptioned pictograms had been used to elicit the response of the informant who was then given the opportunity to confirm or revise that response.

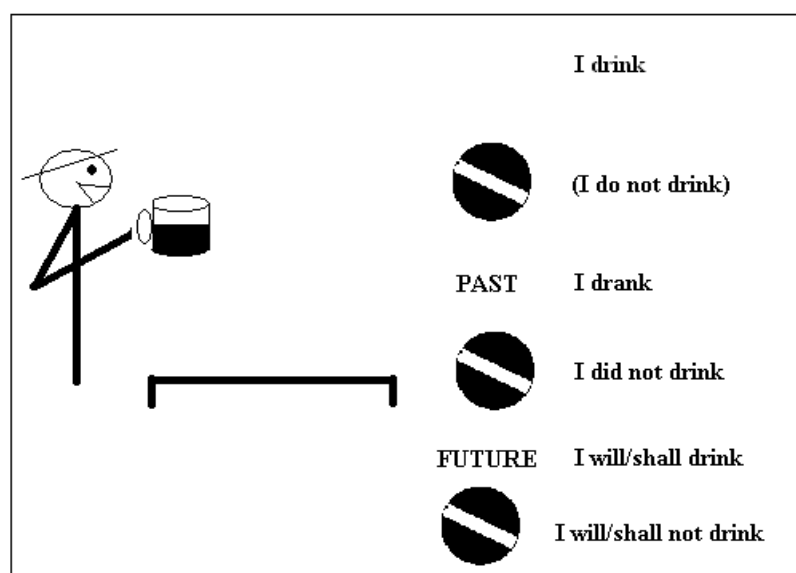
SiSwati Verbal Paradigm

Imibuto Pictograms (Captioned)

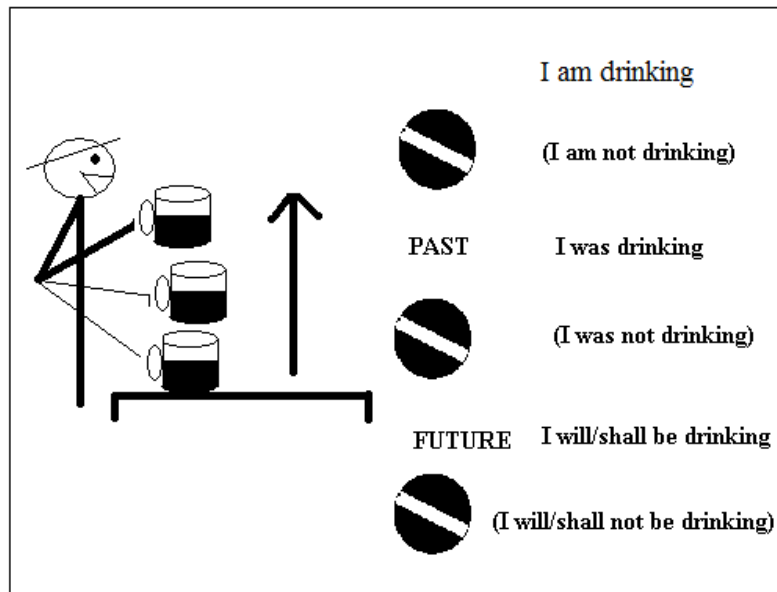
Absolute Tenses

(INDICATIVE MOOD)

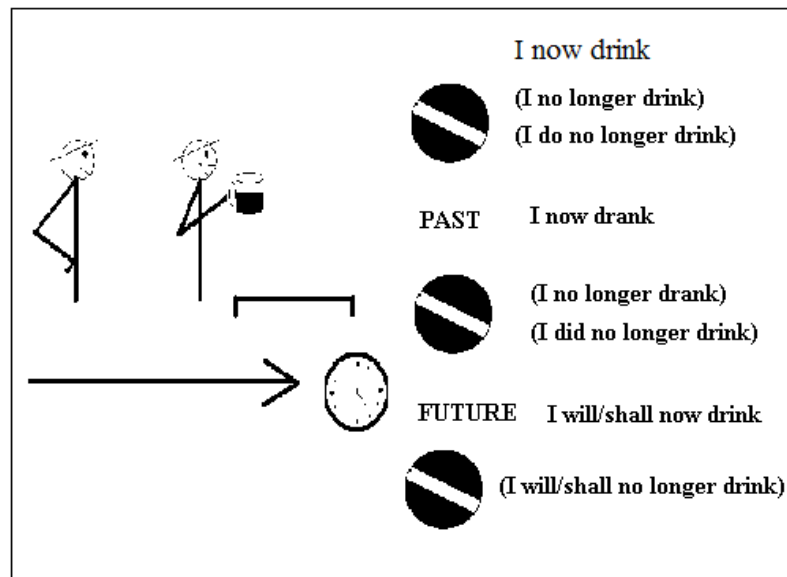
1. BASIC NON-PROGRESSIVE SIMPLE



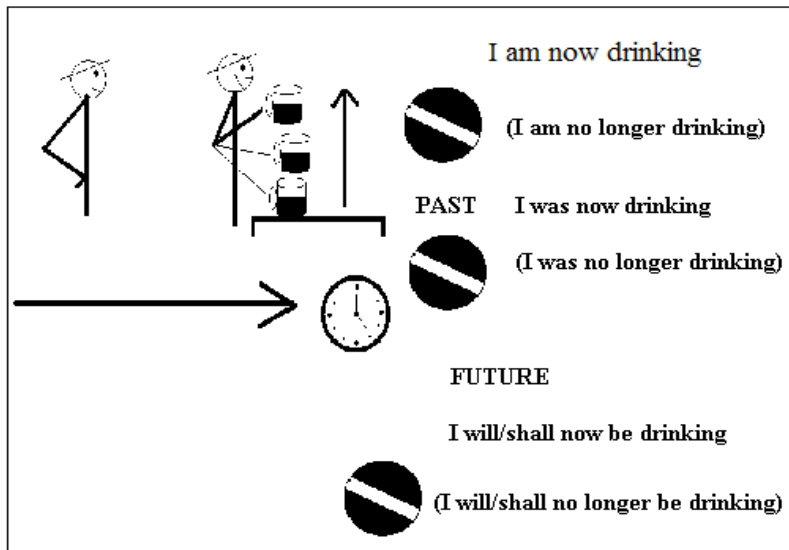
2. BASIC PROGRESSIVE SIMPLE



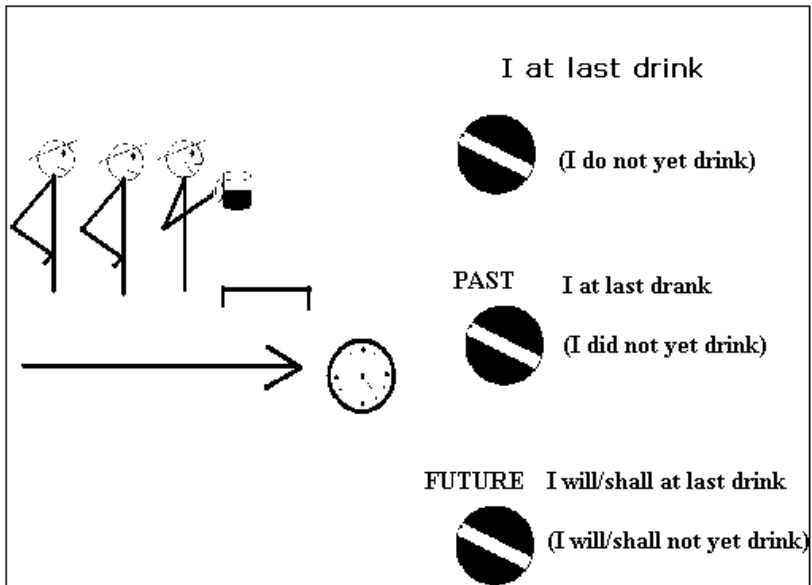
3. BASIC NON-PROGRESSIVE DESISTIVE



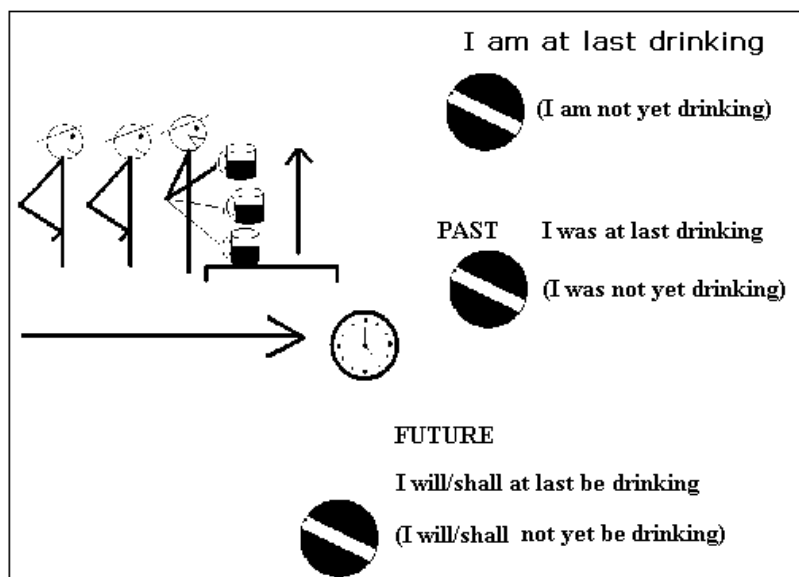
4. BASIC PROGRESSIVE DESISTIVE



5. BASIC NON-PROGRESSIVE EXCLUSIVE

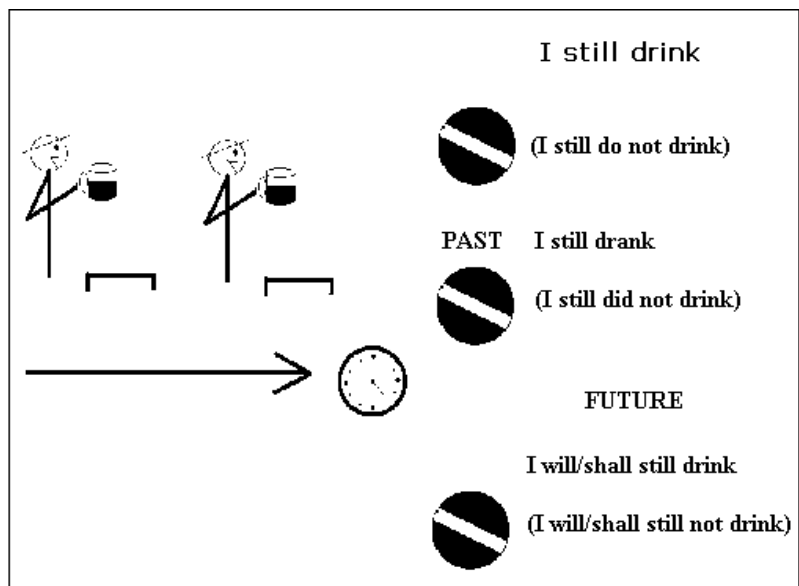


6. BASIC PROGRESSIVE EXCLUSIVE

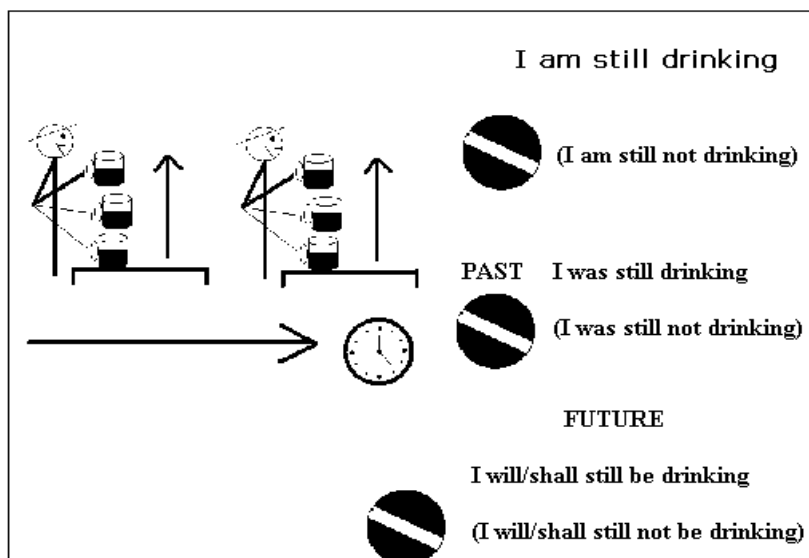


The above six pictograms complete the first half of the interview which is concerned with BASIC aspect. The following six pictograms depict the PERSISTIVE aspect:

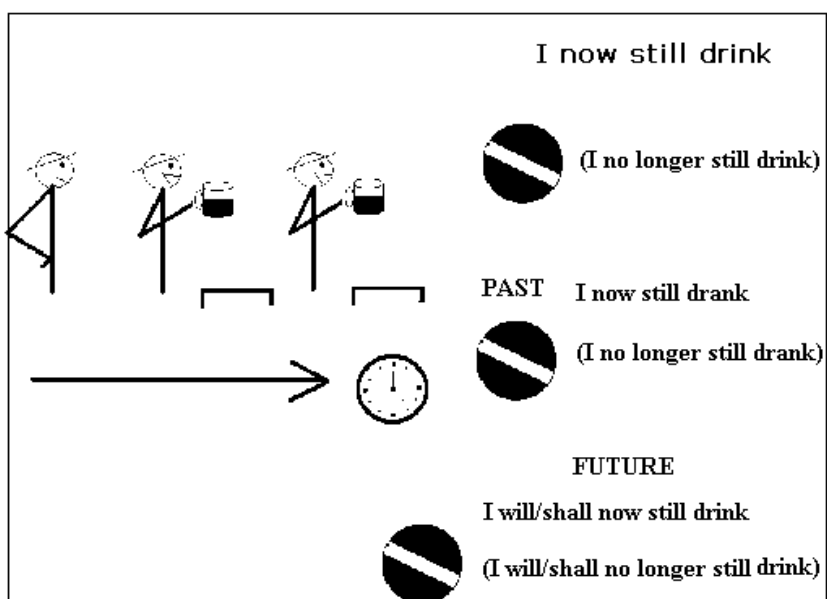
7. PERSISTIVE NON-PROGRESSIVE SIMPLE



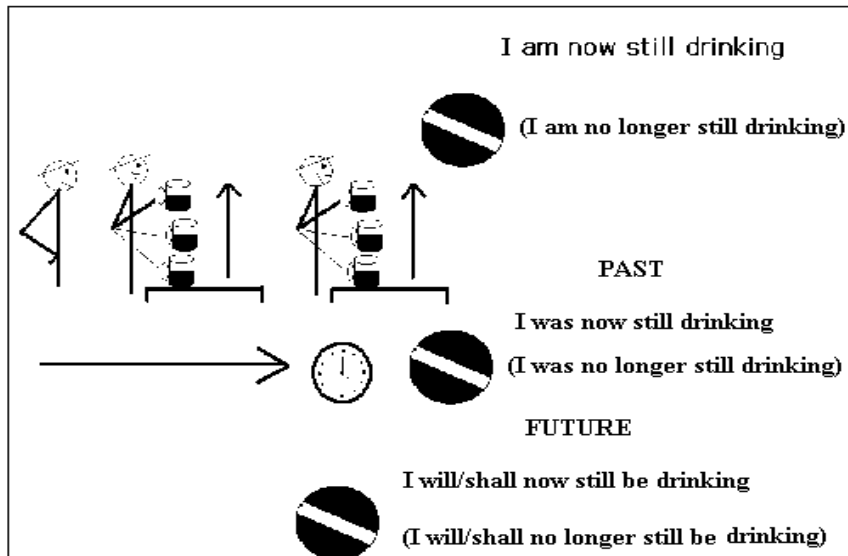
8. PERSISTIVE PROGRESSIVE SIMPLE



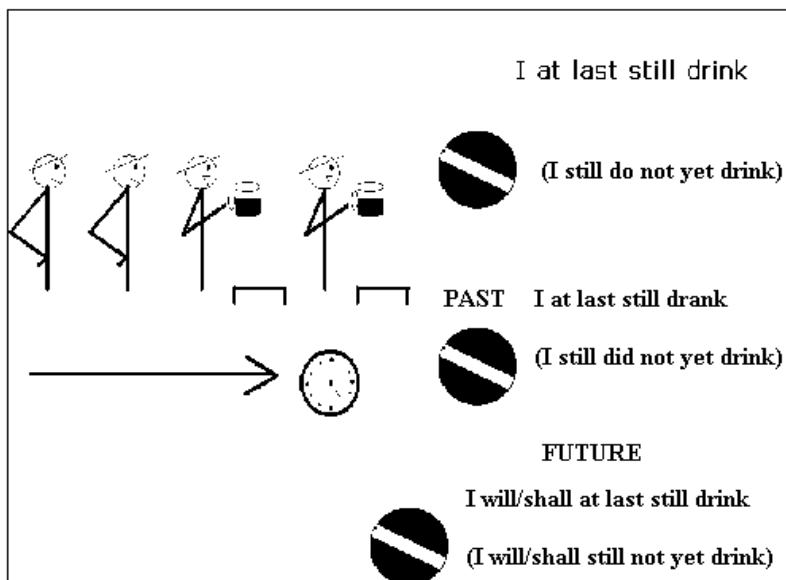
9. PERSISTIVE NON-PROGRESSIVE DESISTIVE



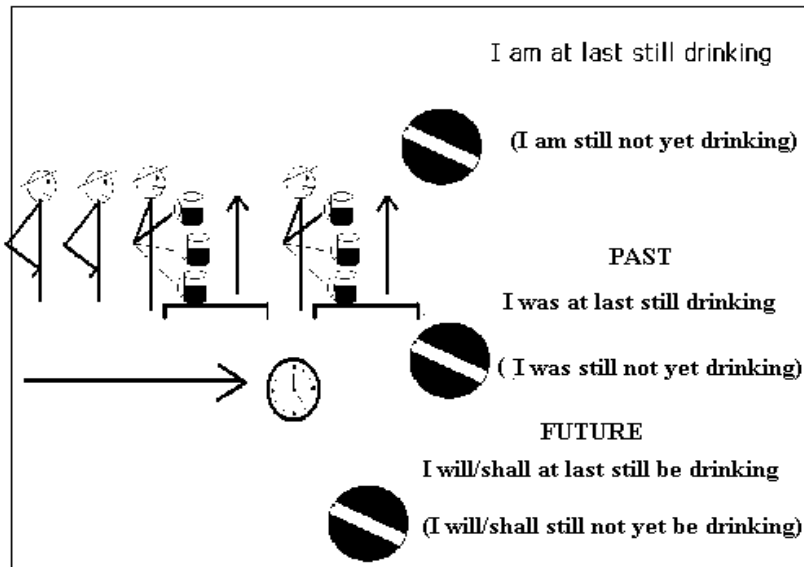
10. PERSISTIVE PROGRESSIVE DESISTIVE



11. PERSISTIVE NON-PROGRESSIVE EXCLUSIVE



12. PERSISTIVE PROGRESSIVE EXCLUSIVE



Appendix 3

In this appendix I include the twelve uncaptioned pictograms designed to elicit the verbal forms of the INDICATIVE mood as described in Appendix 2 above.

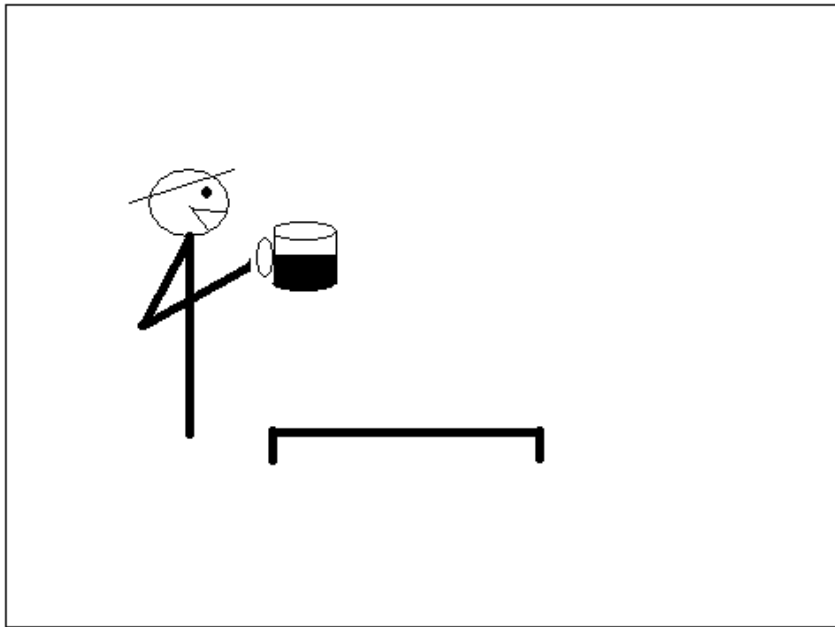
SiSwati Verbal Paradigm

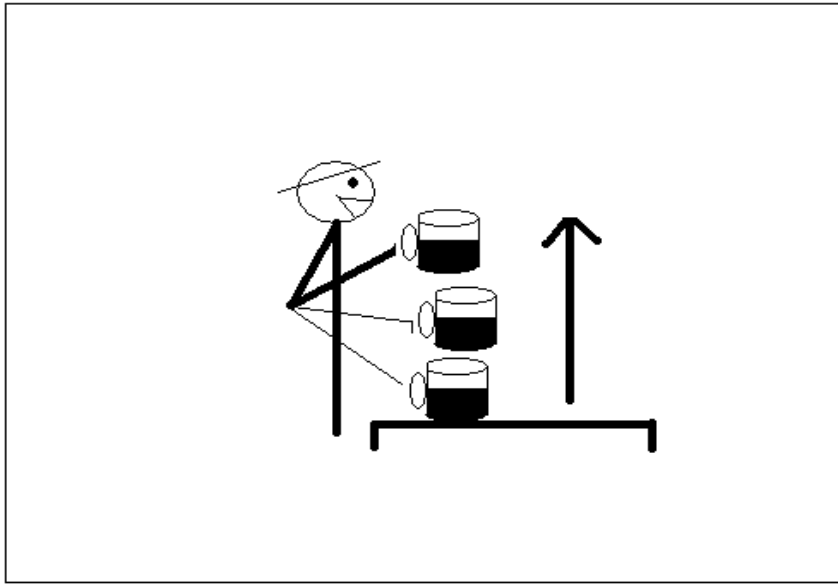
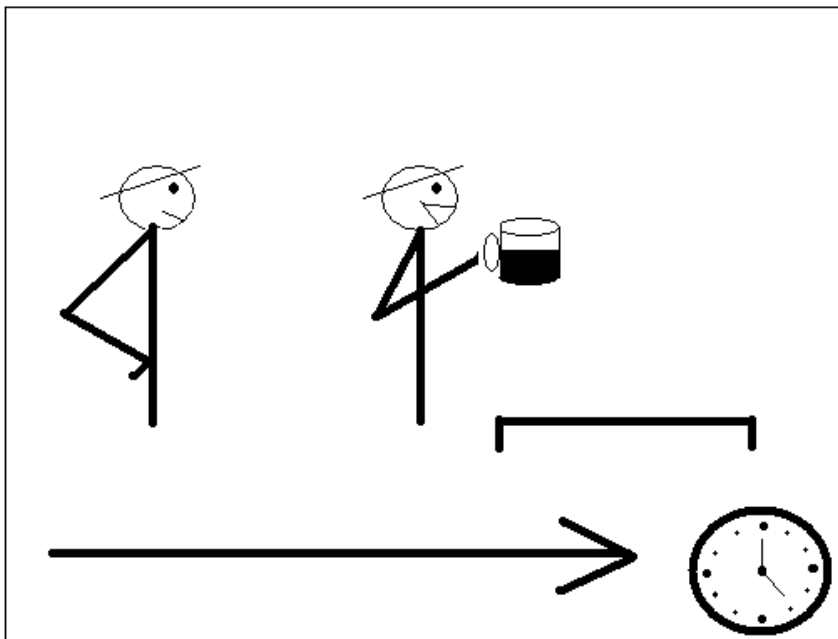
Imibuto Pictograms (Uncaptioned)

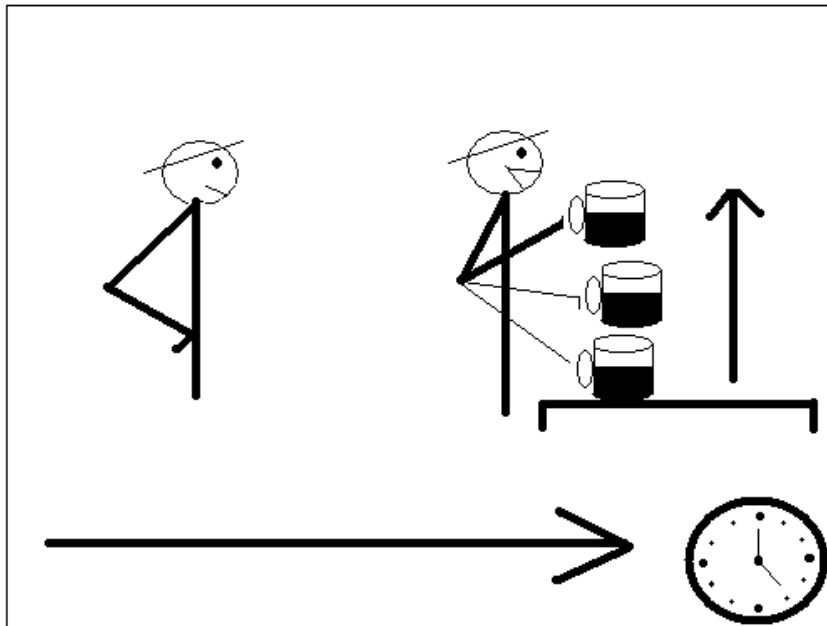
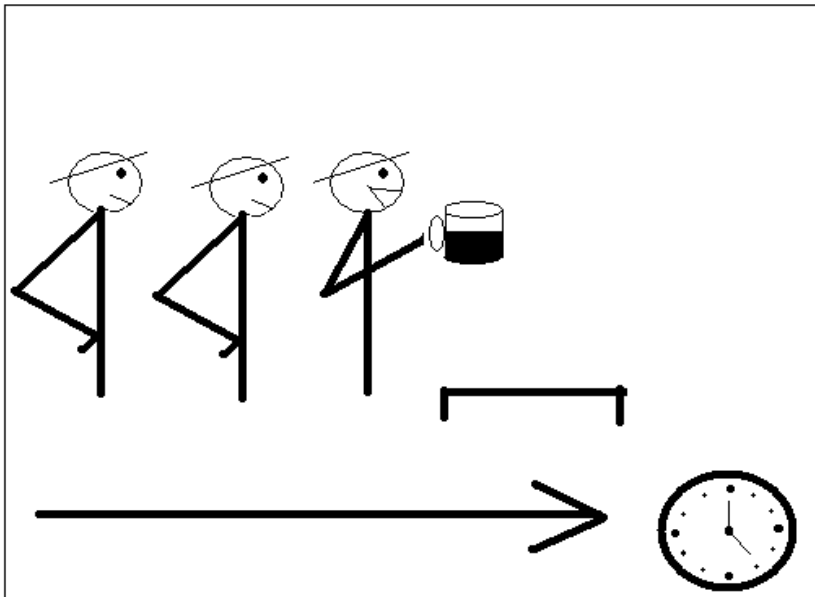
Absolute Tenses

(INDICATIVE MOOD)

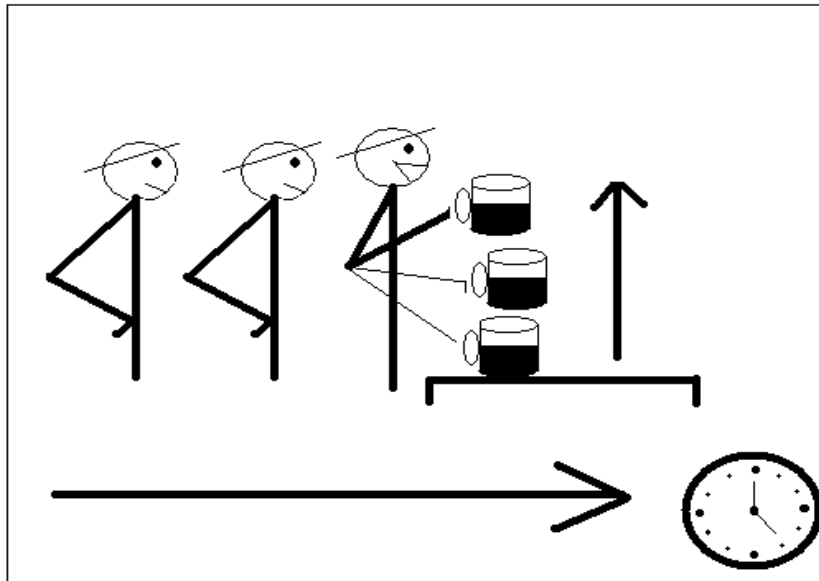
1. BASIC NON-PROGRESSIVE SIMPLE



2. BASIC PROGRESSIVE SIMPLE**3. BASIC NON-PROGRESSIVE DESISTIVE**

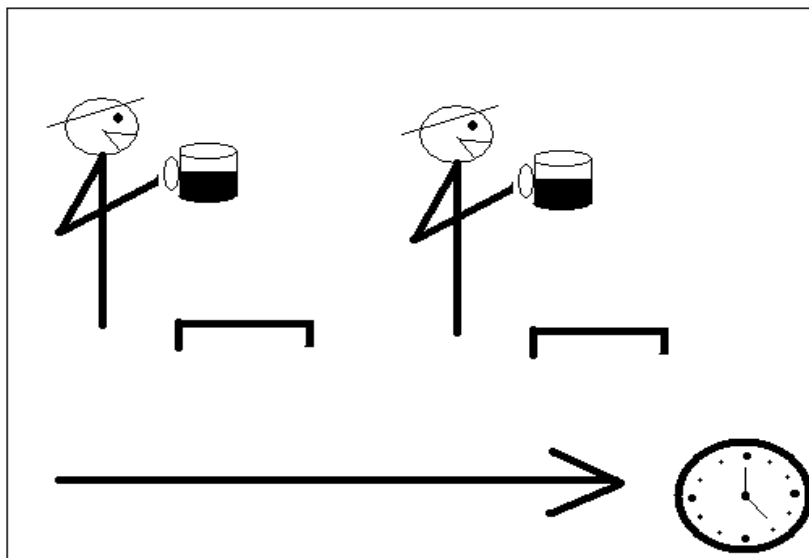
4. BASIC PROGRESSIVE DESISTIVE**5. BASIC NON-PROGRESSIVE EXCLUSIVE**

6. BASIC PROGRESSIVE EXCLUSIVE

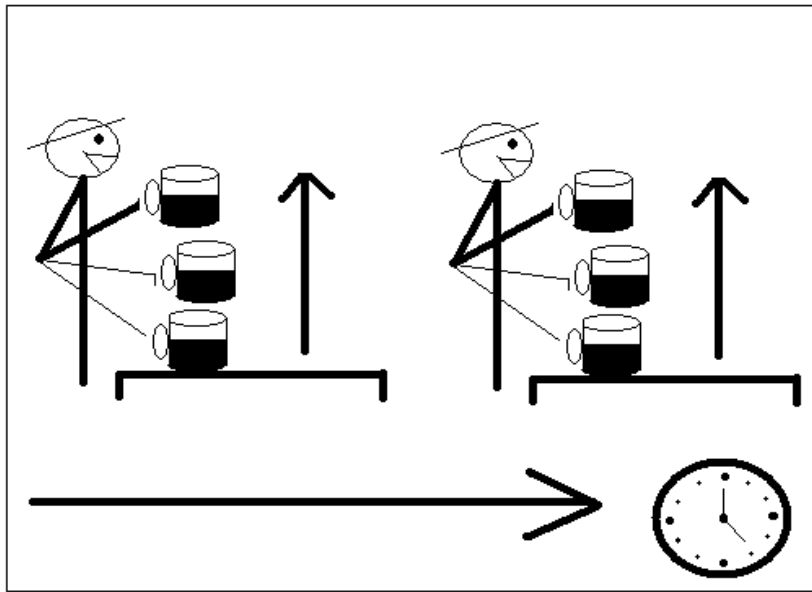


The above six pictograms complete the first half of the interview which is concerned with BASIC aspect. The following six pictograms depict the PERSISTIVE aspect:

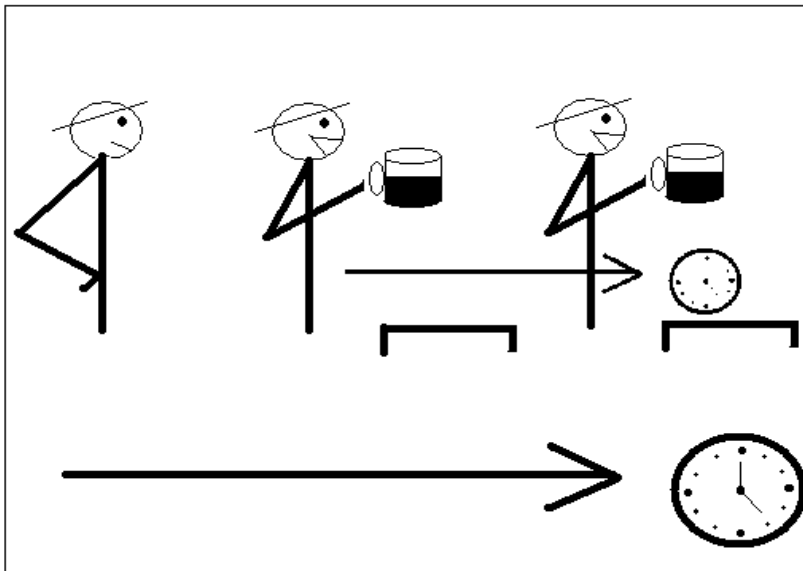
7. PERSISTIVE NON-PROGRESSIVE SIMPLE



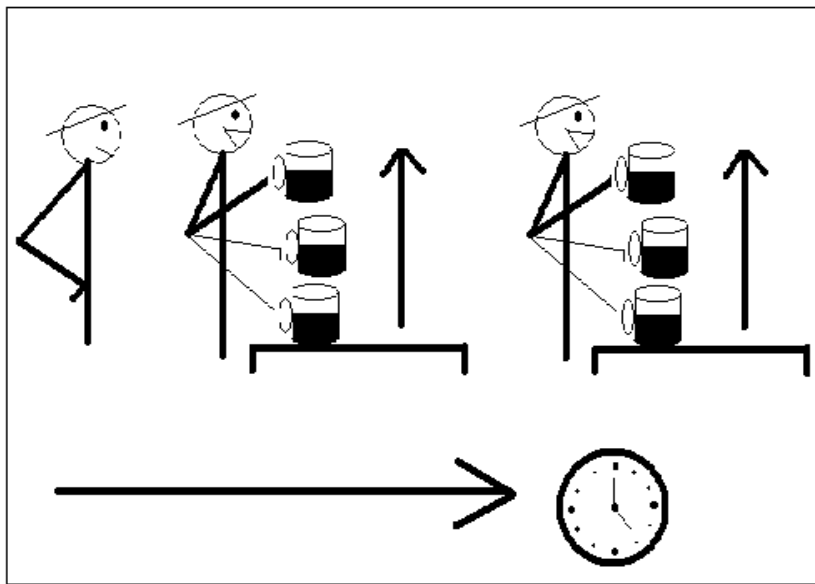
8. PERSISTIVE PROGRESSIVE SIMPLE



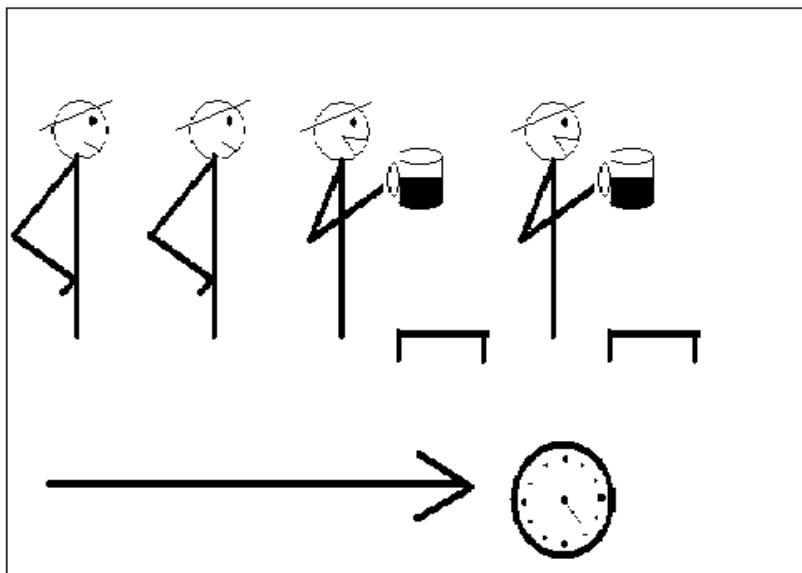
9. PERSISTIVE NON-PROGRESSIVE DESISTIVE

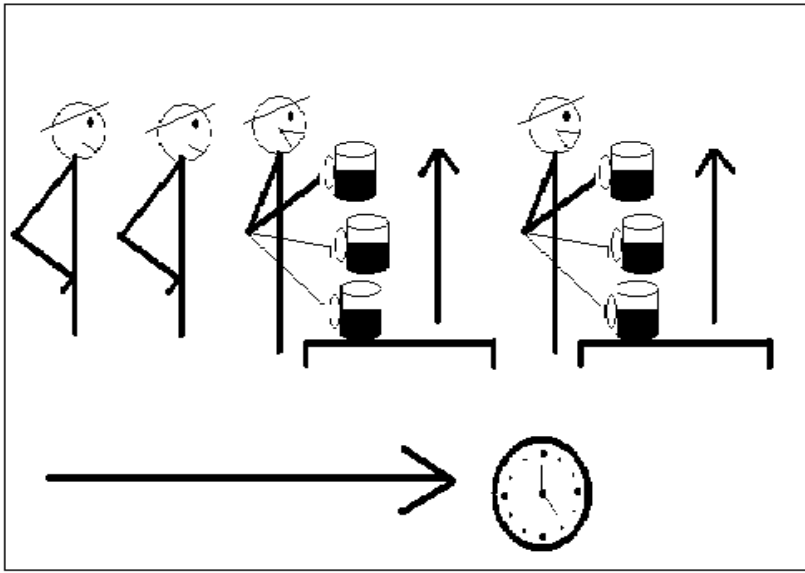


10. PERSISTIVE PROGRESSIVE DESISTIVE



11. PERSISTIVE NON-PROGRESSIVE EXCLUSIVE



12. PERSISTIVE PROGRESSIVE EXCLUSIVE

Appendix 4

In this appendix I include the twelve captioned pictograms designed to elicit the PERFECT verbal forms of the INDICATIVE mood. These pictograms were placed on the Time Line Sheets during the interviews and used in conjunction with the Reference Time Symbol to represent, PERFECT, PLUPERFECT and FUTURE PERFECT tenses (Progressive and non-Progressive, negative and positive). Their application is described in detail in chapter three (Methodology).

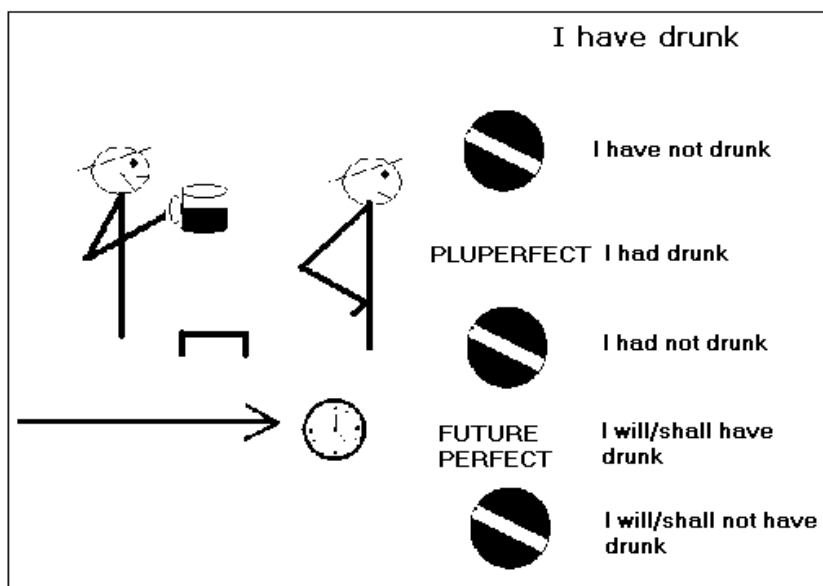
SiSwati Verbal Paradigm

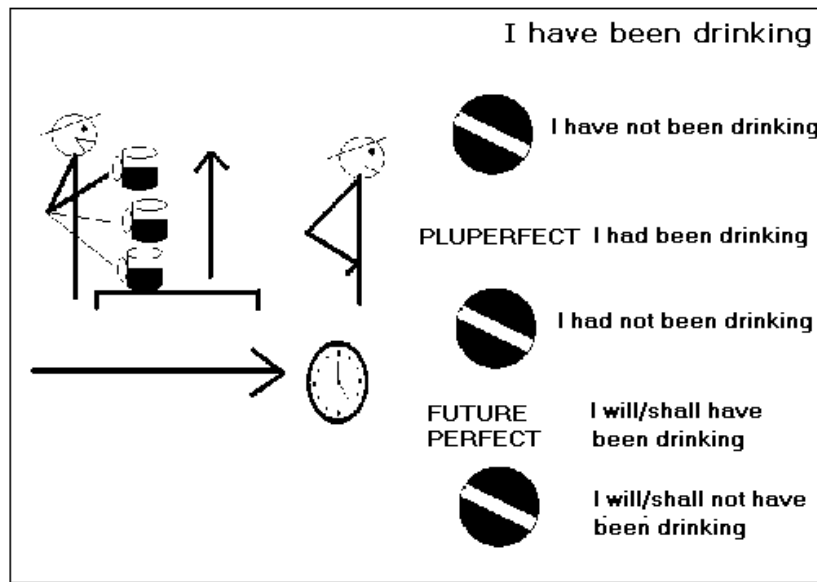
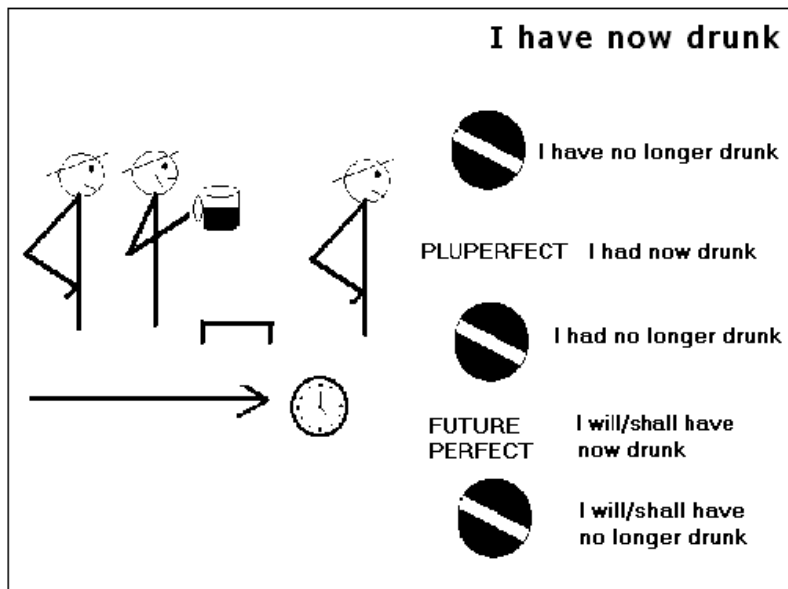
Imibuto Pictograms

Absolute and Relative Tenses

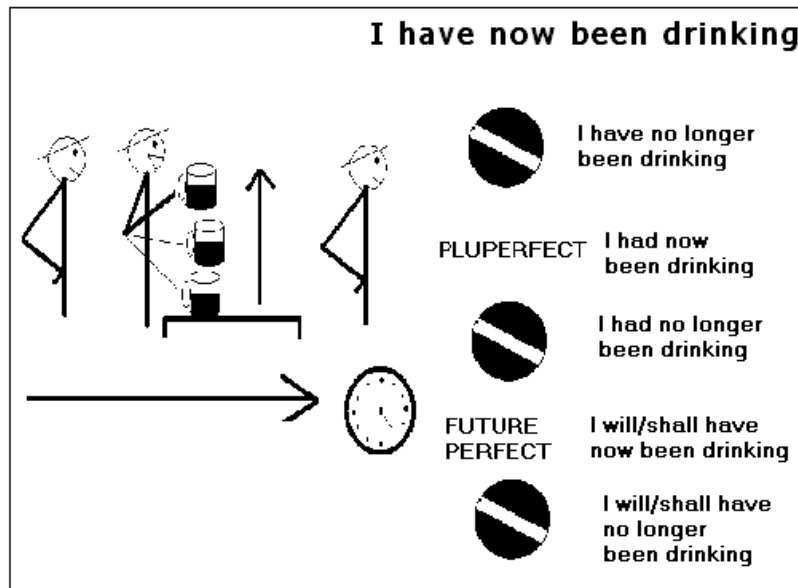
(INDICATIVE MOOD)

P1. PERFECT BASIC NON-PROGRESSIVE SIMPLE

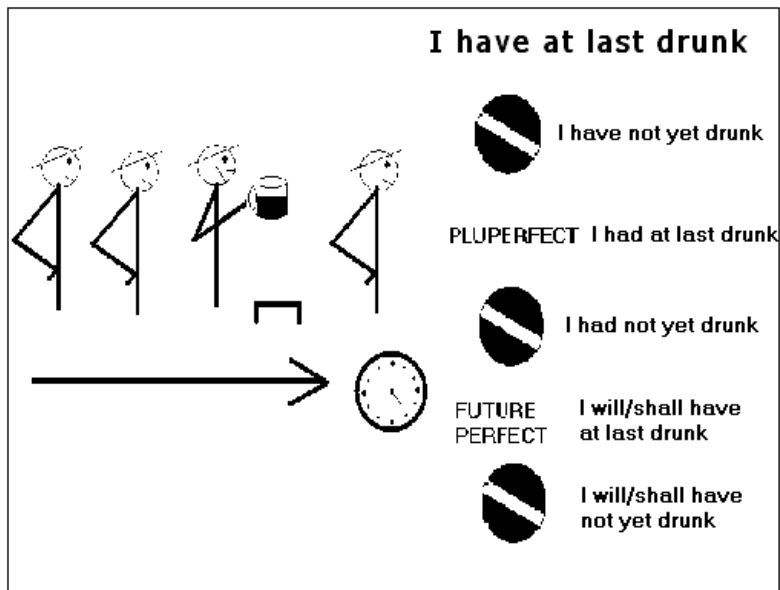


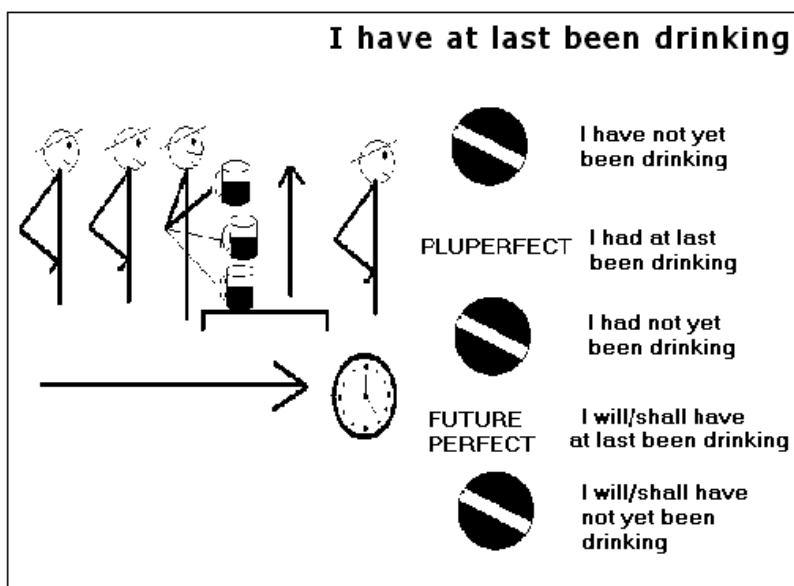
P2. PERFECT BASIC PROGRESSIVE SIMPLE**P3. PERFECT BASIC NON-PROGRESSIVE DESISTIVE**

P4. PERFECT BASIC PROGRESSIVE DESISTIVE

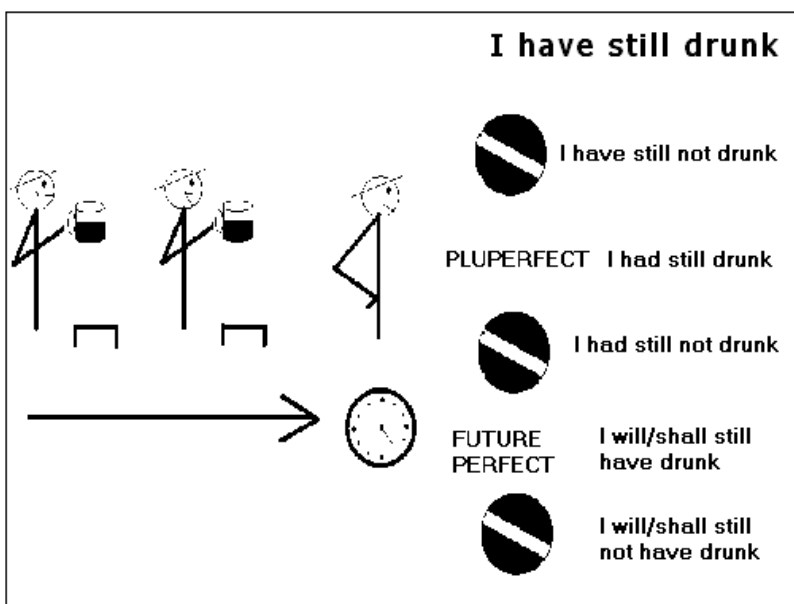


P5 PERFECT BASIC NON-PROGRESSIVE EXCLUSIVE



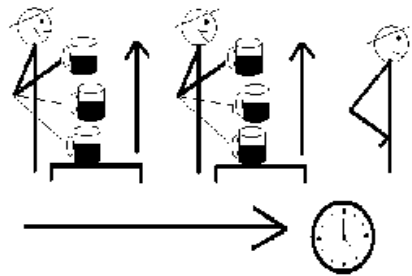
P6. PERFECT BASIC PROGRESSIVE EXCLUSIVE


The above six pictograms complete the first half of the interview which is concerned with BASIC aspect. The following six pictograms depict the PERSISTIVE aspect:


P7. PERFECT PERSISTIVE NON-PROGRESSIVE SIMPLE


P8. PERFECT PERSISTIVE PROGRESSIVE SIMPLE


I have still been drinking




 I have still not been drinking

PLUPERFECT  I had still been drinking

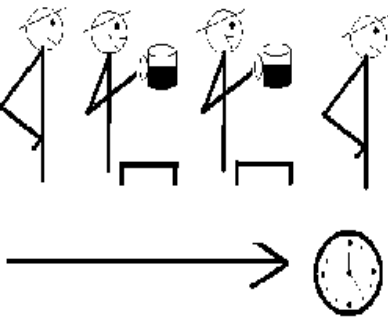
 I had still not been drinking


FUTURE PERFECT  I will/shall still have been drinking


 I will/shall still not have been drinking


P9. PERFECT PERSISTIVE PROGRESSIVE DESISTIVE


I have now still drunk




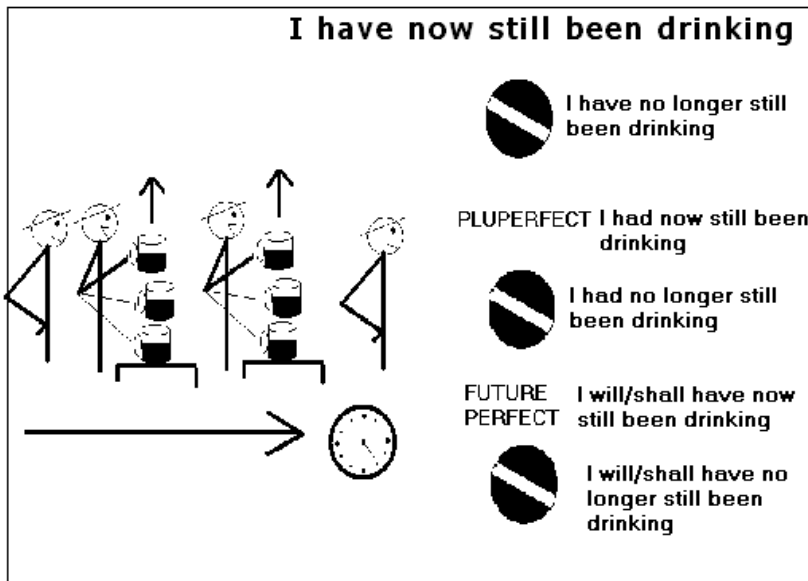
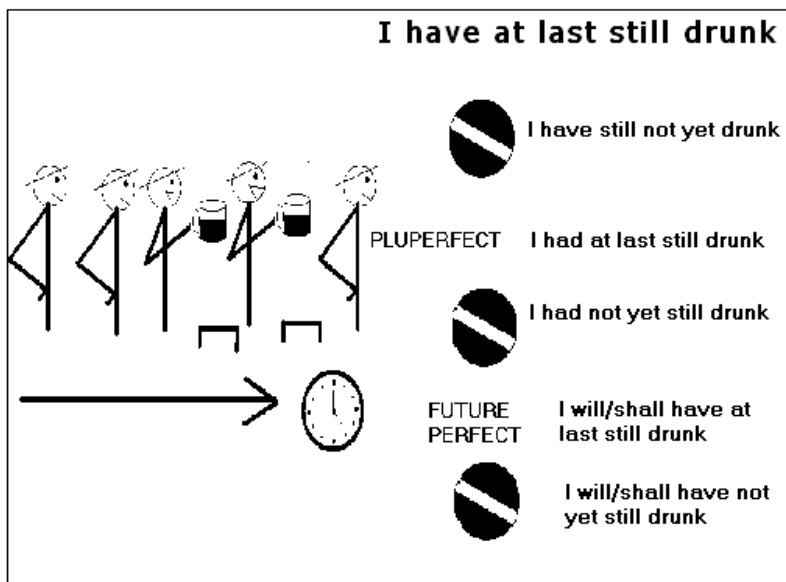
 I have no longer still drunk

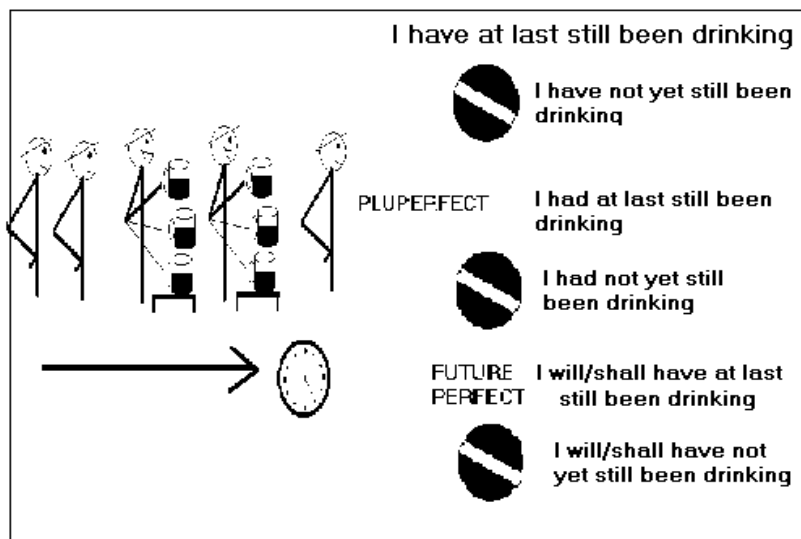
PLUPERFECT  I had now still drunk

 I had no longer still drunk

FUTURE PERFECT  I will/shall have now still drunk

 I will/shall have no longer still drunk

P10. PERFECT PERSISTIVE PROGRESSIVE DESISTIVE**P11. PERFECT PERSISTIVE PROGRESSIVE EXCLUSIVE**

P12. PERFECT PERSISTIVE PROGRESSIVE EXCLUSIVE

Appendix 5

In this appendix I include the six captioned pictograms designed to elicit the stative verbal forms of the INDICATIVE mood. These pictograms were placed on the Time Line Sheets during the interviews to represent Progressive and non-Progressive and positive and negative forms. Their application is described in detail in chapter three (Methodology).

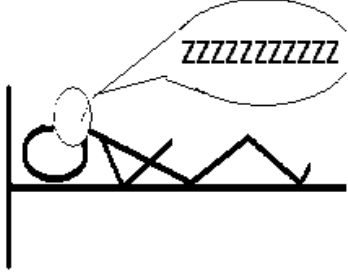

SiSwati Verbal Paradigm

Imibuto Pictograms

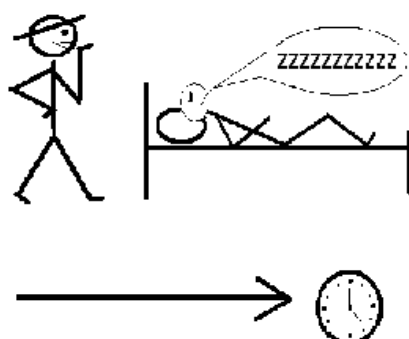
STATIVE

(INDICATIVE MOOD)

S1. STATIVE BASIC PROGRESSIVE & NON-PROGRESSIVE SIMPLE


	NON-PROGRESSIVE
	I sleep
	I am asleep
	PROGRESSIVE
	I am sleeping
	NON-PROGRESSIVE
	I do not sleep
	I am not asleep
	PROGRESSIVE
	I am not sleeping

S2. STATIVE BASIC PROGRESSIVE & NON-PROGRESSIVE DESISTIVE



NON-PROGRESSIVE
I now sleep
I am now asleep

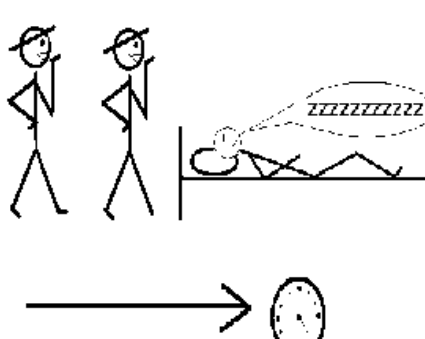
PROGRESSIVE
I am now sleeping



NON-PROGRESSIVE
I no longer sleep
I am no longer asleep


PROGRESSIVE
I am no longer sleeping

S3. STATIVE BASIC PROGRESSIVE & NON-PROGRESSIVE EXCLUSIVE



NON-PROGRESSIVE
I at last sleep
I am at last asleep

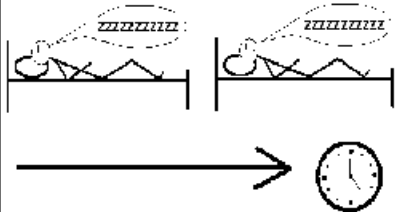
PROGRESSIVE
I am at last sleeping



NON-PROGRESSIVE
I do not yet sleep
I am not yet asleep

PROGRESSIVE
I am not yet sleeping

S4. STATIVE PERSISTIVE PROGRESSIVE & NON-PROGRESSIVE SIMPLE




NON-PROGRESSIVE

I still sleep

I am still asleep

PROGRESSIVE

I am still sleeping



NON-PROGRESSIVE

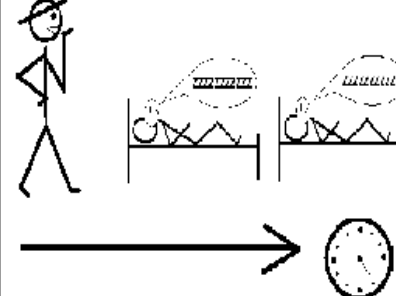
I still do not sleep

I am still not asleep

PROGRESSIVE

I am still not sleeping

S5. STATIVE PERSISTIVE PROGRESSIVE & NON-PROGRESSIVE DESISTIVE




NON-PROGRESSIVE

I now still sleep

I am now still asleep

PROGRESSIVE

I am now still sleeping



NON-PROGRESSIVE

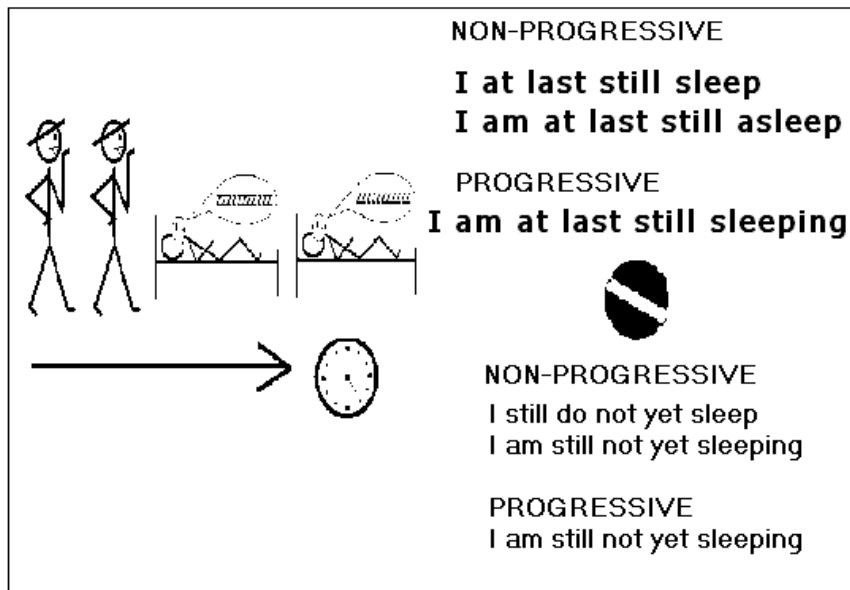
I no longer still sleep

I am no longer still asleep

PROGRESSIVE

I am no longer still sleeping

S6. STATIVE PERSISTIVE PROGRESSIVE & NON-PROGRESSIVE EXCLUSIVE



Appendix 6

In this appendix I include the six captioned pictograms designed to elicit the STATIVE PERFECT verbal forms of the INDICATIVE mood. These pictograms were placed on the Time Line Sheets during the interviews in conjunction with the Reference Time Symbol to represent Progressive and non-Progressive and positive and negative forms. Their application is described in detail in chapter three (Methodology).

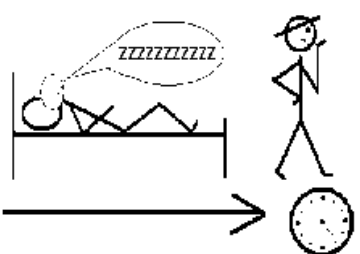

SiSwati Verbal Paradigm

Imibuto Pictograms

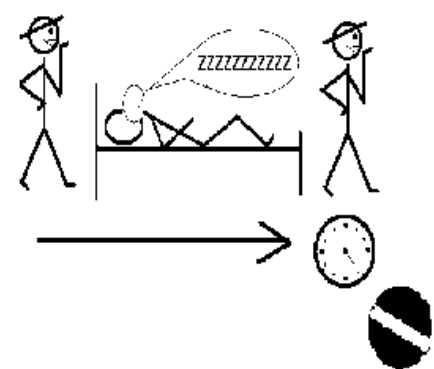
STATIVE PERFECT

(INDICATIVE MOOD)

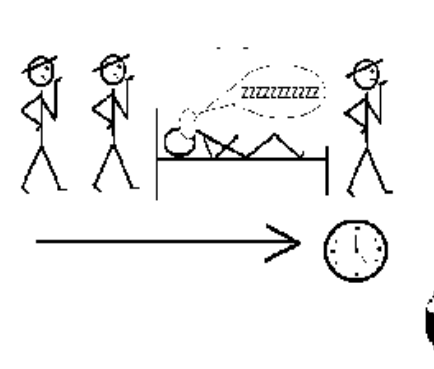
SP1. STATIVE PERFECT BASIC PROGRESSIVE & NON-PROGRESSIVE SIMPLE

		NON-PROGRESSIVE I have slept I have been asleep PROGRESSIVE I have been sleeping
PROGRESSIVE I have not been sleeping		 NON-PROGRESSIVE I have not slept I have not been asleep
	NON-PROGRESSIVE	PROGRESSIVE
Pluperfect	I had slept	I had been sleeping
Negative	I had not slept	I had not been sleeping
Future	I will/shall have slept	I will/shall have been sleeping
Perfect		
Negative	I will/shall not have slept	I will/shall not have been sleeping

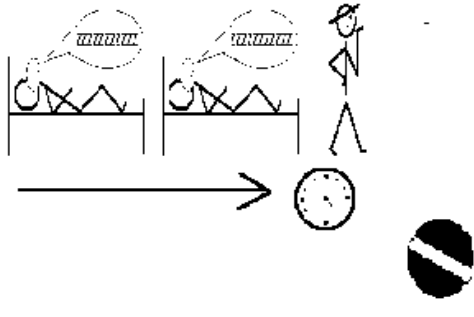
SP2. STATIVE PERFECT BASIC PROGRESSIVE & NON-PROGRESSIVE DESISTIVE

		
	PROGRESSIVE I have now slept I have now been asleep	
	NON-PROGRESSIVE I have now been sleeping	
	NON-PROGRESSIVE I have no longer slept I have no longer been asleep	
	PROGRESSIVE I have no longer been sleeping	
Pluperfect Negative	NON-PROGRESSIVE I had now slept I had no longer slept	PROGRESSIVE I had now been sleeping I had no longer been sleeping
Future Perfect Negative	I will/shall have now slept I will/shall have no longer slept	I will/shall have now been sleeping I will/shall no longer have been sleeping

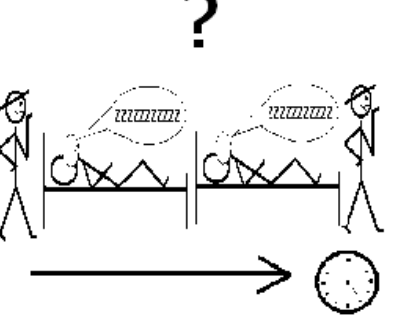
SP3. STATIVE PERFECT BASIC PROGRESSIVE & NON-PROGRESSIVE EXCLUSIVE

		
	NON-PROGRESSIVE I have at last slept I have at last been asleep	
	PROGRESSIVE I have at last been sleeping	
	NON-PROGRESSIVE I have not yet slept I have not yet been asleep	
	PROGRESSIVE I have not yet been sleeping	
Pluperfect Negative	NON-PROGRESSIVE I had at last slept	PROGRESSIVE I had at last been sleeping
Negative	I had not yet slept	I had not yet been sleeping
Future Perfect Negative	I will/shall have at last slept	I will/shall have at last been sleeping
Negative	I will/shall have not yet slept	I will/shall have not yet been sleeping

SP4. STATIVE PERFECT PERSISTIVE PROGRESSIVE & NON-PROGRESSIVE SIMPLE

		
NON-PROGRESSIVE I have still slept I have still been asleep PROGRESSIVE I have still been sleeping NON-PROGRESSIVE I have still not slept I have still not been asleep PROGRESSIVE I have still not been sleeping		
Pluperfect	NON-PROGRESSIVE I had still slept	PROGRESSIVE I had still been sleeping
Negative	I had still not slept	I had still not been sleeping
Future Perfect	I will/shall have still slept	I will/shall have still been sleeping
Negative	I will/shall have still not slept	I will/shall have still not been sleeping

SP5. STATIVE PERFECT PERSISTIVE PROGRESSIVE & NON-PROGRESSIVE DESISTIVE

		
NON-PROGRESSIVE I have now still slept I have now still been asleep PROGRESSIVE I have now still been sleeping NON-PROGRESSIVE I have still no longer slept I have still no longer been asleep PROGRESSIVE I have still no longer been sleeping		
Pluperfect	NON-PROGRESSIVE I had now still slept	PROGRESSIVE I had now still been sleeping
Negative	I had no longer still slept	I had no longer still been sleeping
Future Perfect	I will/shall have now still slept	I will/shall have now still been sleeping
Negative	I will/shall have no longer still slept	I will/shall have no longer still been sleeping

SP6. STATIVE PERFECT PERSISTIVE PROGRESSIVE & NON-PROGRESSIVE EXCLUSIVE

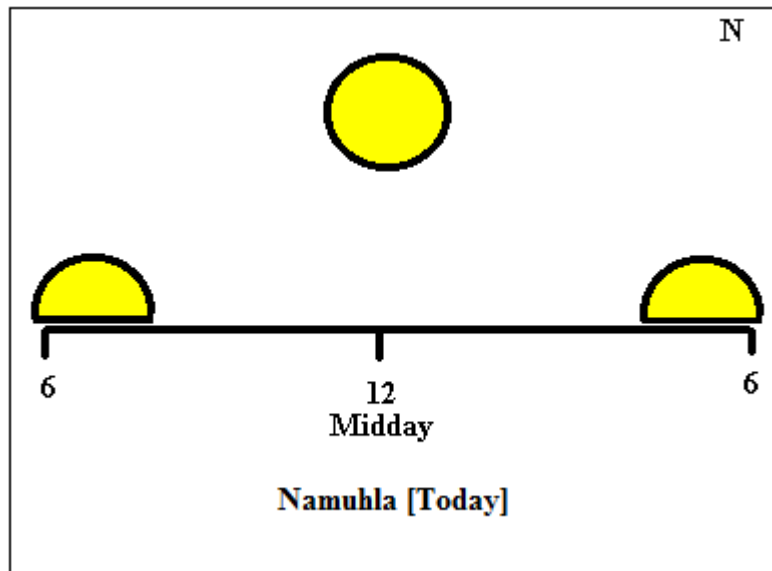
<p>NON-PROGRESSIVE I have at last still slept I have at last still been asleep</p> <p>PROGRESSIVE I have at last still been sleeping</p> <p>NON-PROGRESSIVE I have still not yet slept I have still not yet been asleep</p> <p>PROGRESSIVE I have still not yet been sleeping</p>		
Pluperfect	NON-PROGRESSIVE I had at last still slept	PROGRESSIVE I had at last still been sleeping
Negative	I had still not yet slept	I had still not yet been sleeping
Future Perfect	I will/shall have at last still slept	I will/shall have at last still been sleeping
Negative	I will/shall have not yet still slept	I will/shall have not yet still been sleeping

Appendix 7

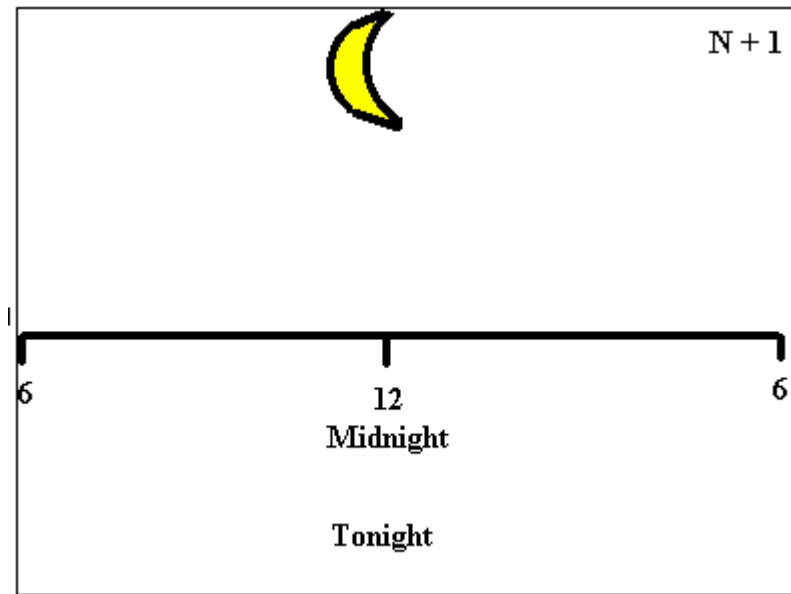
The Time Line Sheets were placed before the informant during the interview as described in chapter three (Methodology). Depending on the temporal proximity and polarity of the interview (REMOTE or IMMEDIATE, PAST or FUTURE, positive or negative) the individual sheets would be deployed and then the Pictograms (representing Event time), the Speech Time Symbol and Reference Time Symbol or Negation Symbol would be placed on the Time Line Sheets as appropriate.

Time Line Sheets & Time Reference Symbols

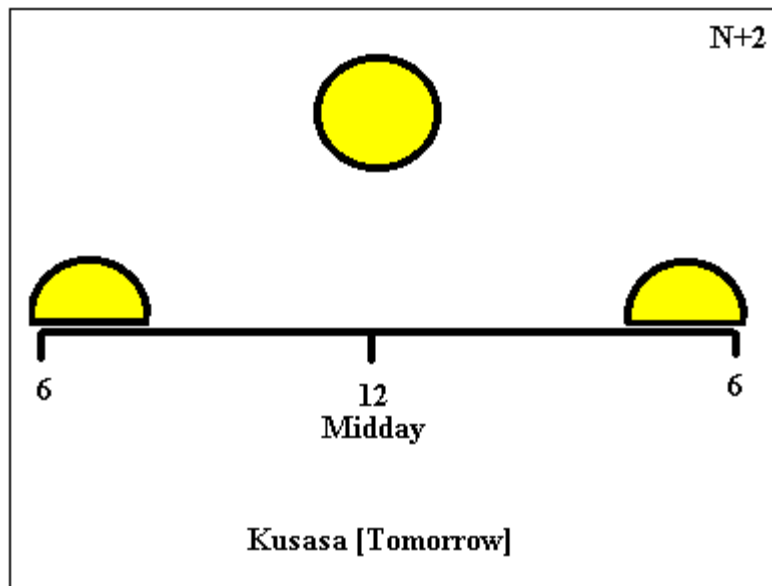
N. Today (*Namuhla*)



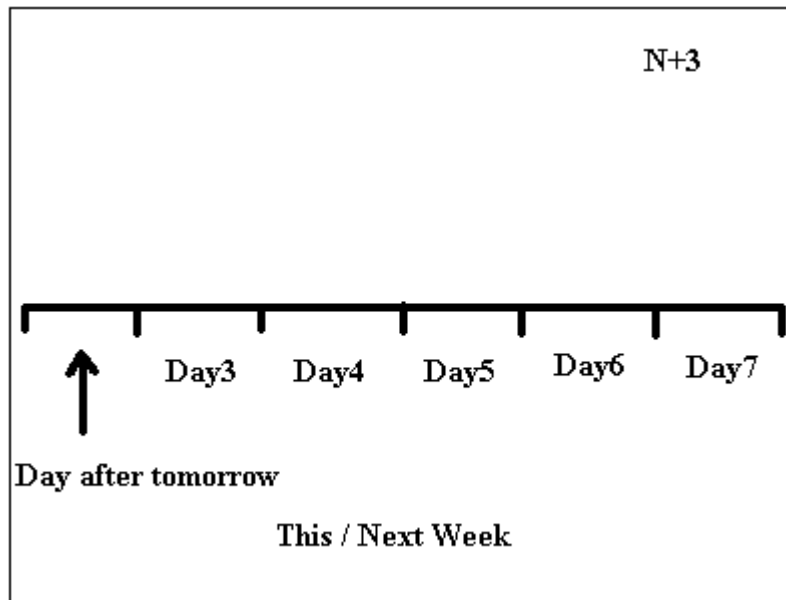
N + 1 Tonight



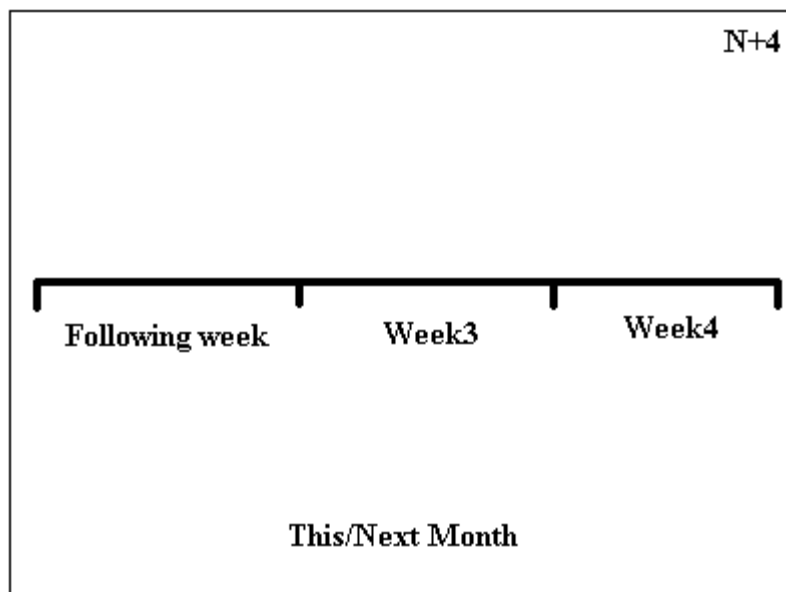
N + 2 Tomorrow (*Kusasa*)



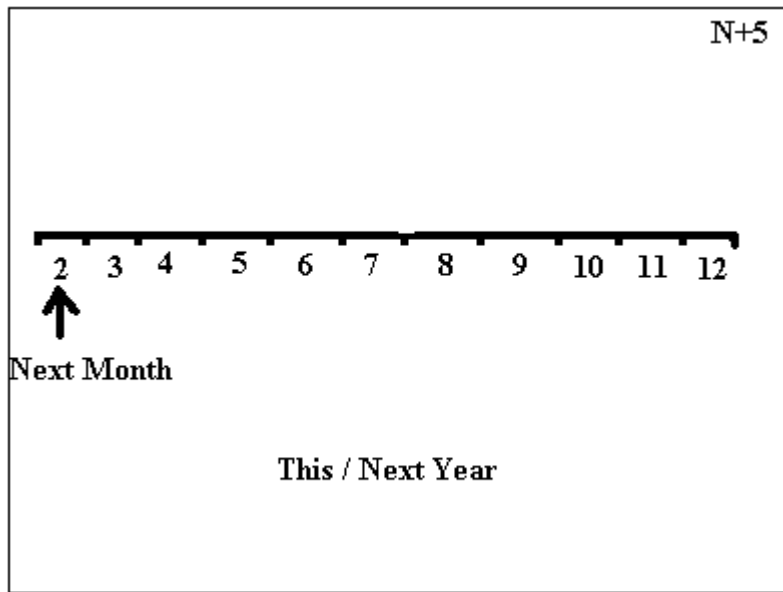
N + 3 Next Week (*Liviki lelitako*)



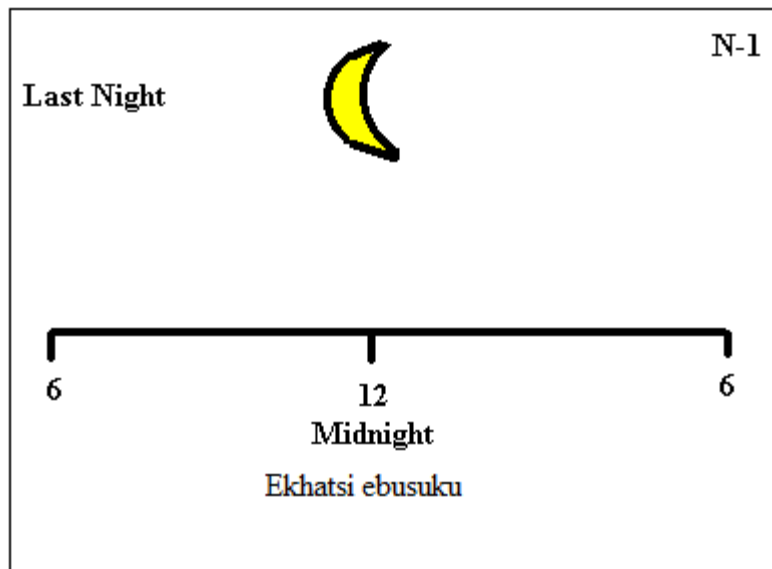
N + 4 Next Month (*Lenyanga letako*)



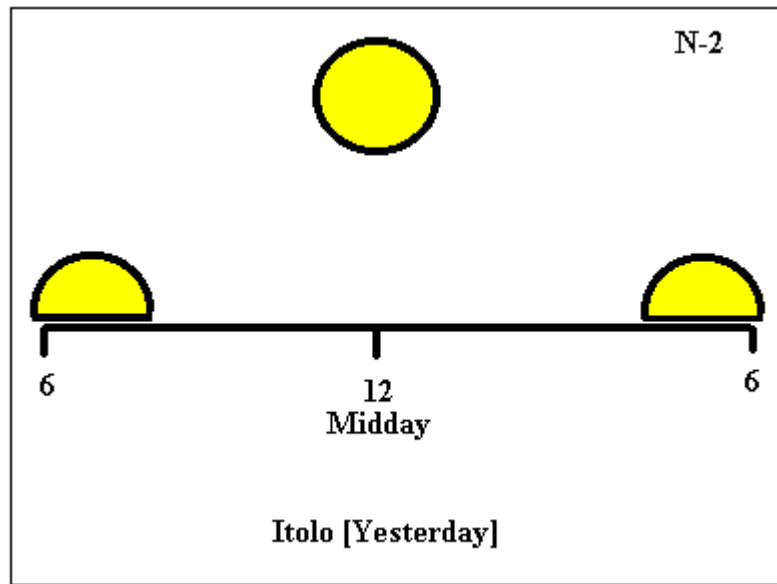
N + 5 Next Year (*Umnyaka lotako*)



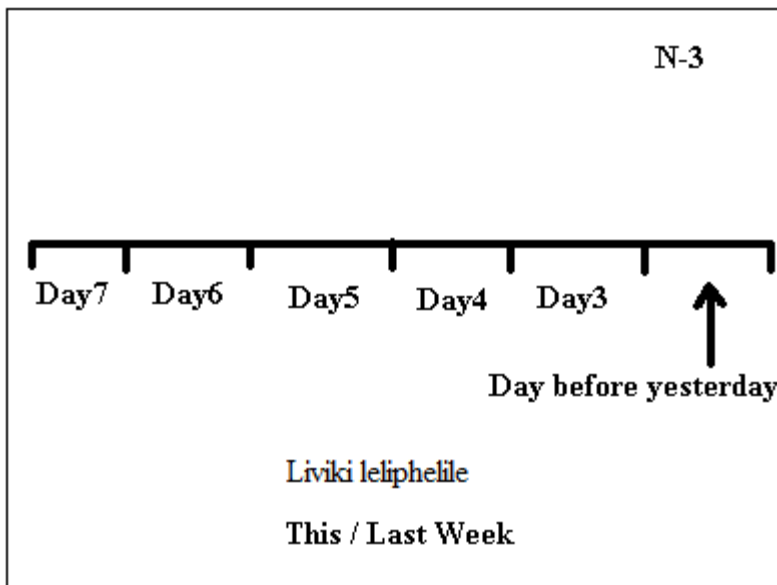
N-1 Last Night



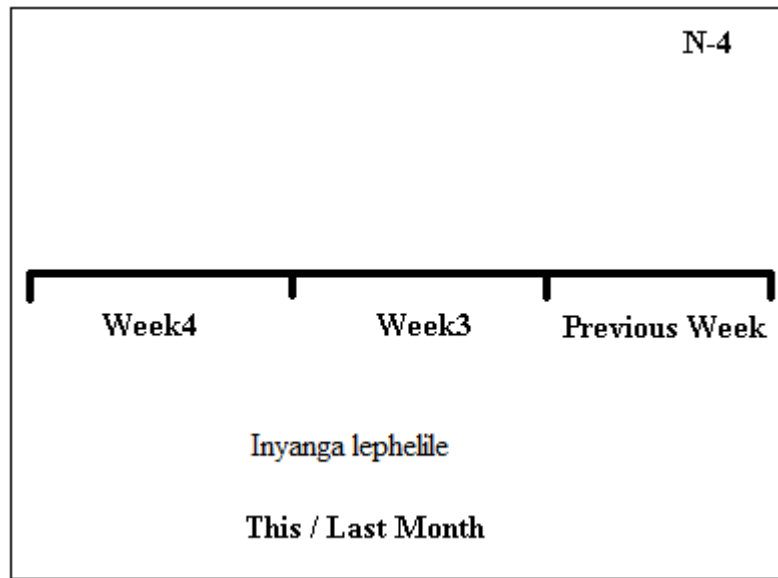
N-2 Yesterday (*Itolo*)



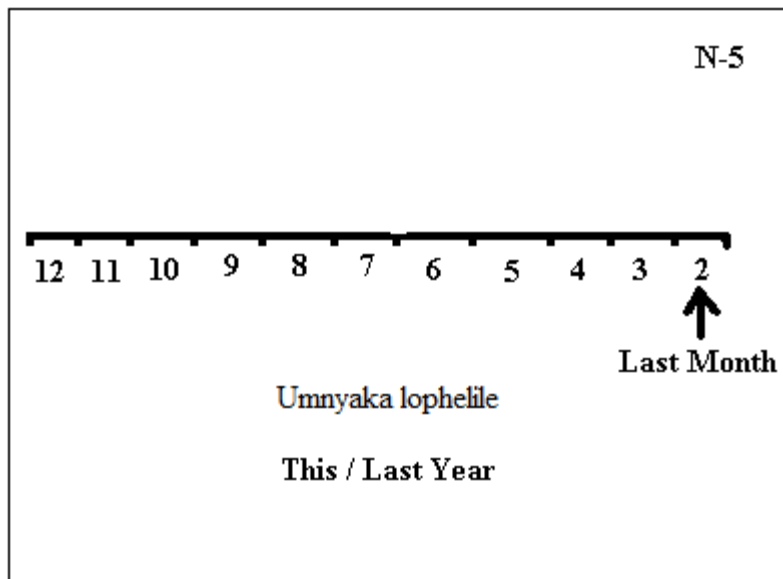
N-3 Last week (*Liviki leliphelile*)



N-4 Last Month (*Inyanga lephelile*)



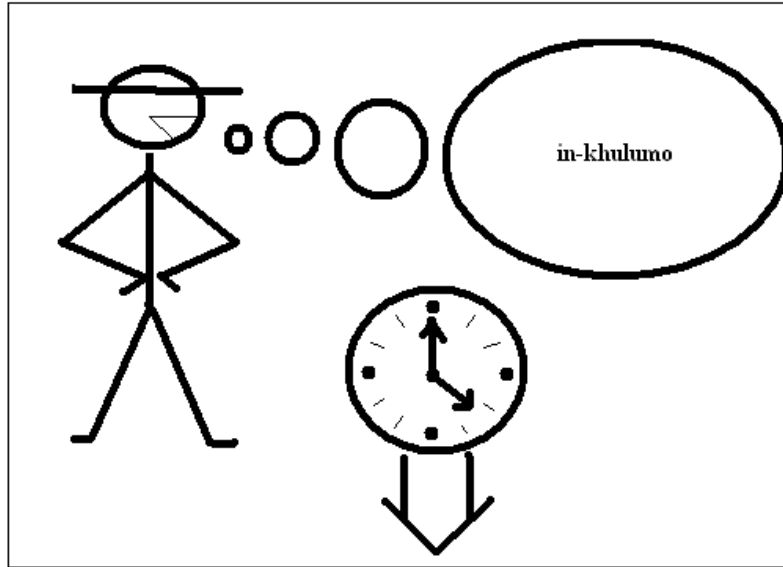
N-5 Last Year (*Umnyaka lophelile*)



Time Reference Symbols

Speech Time (S)

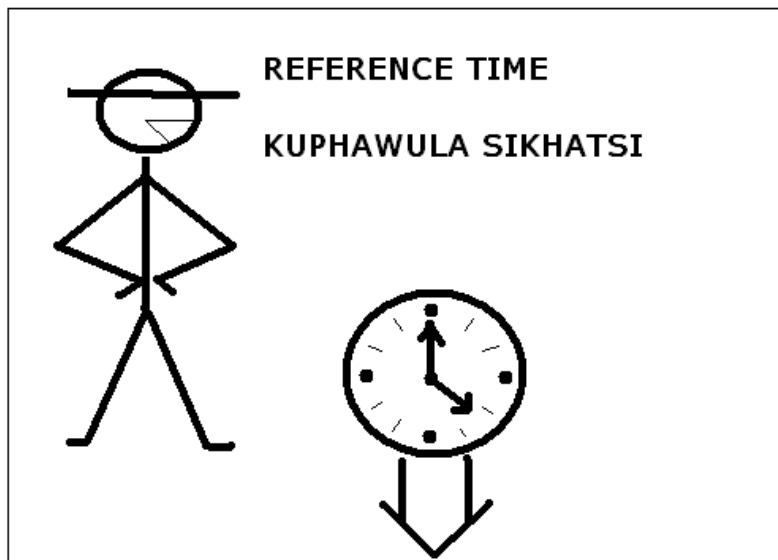
Speech Time was always current time (time of interview).



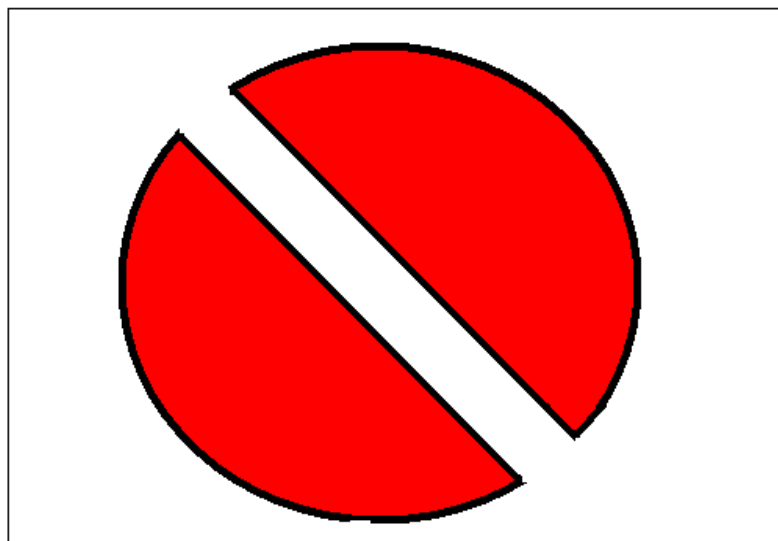
Event Time (E)

Pictograms represented Event (see Appendices 2-6)

Reference Time (R)



The following NO-ENTRY sign encoded NEGATIVITY.



Appendix 8 (This form was completed for each interview)

Introduction	Singeniso	Research Interview	Imibuto:
1. Date & Time <i>Lilanga lenyanga</i>	[.....]		<i>Sikhatsi ngu-.....</i>
2. Place <i>Indzawo:</i>	[.....]		
3. Name of Informant <i>Ligama lasolwimi:</i>	[.....]		
4. TAM Sheet Nos. <i>KBD inombolo yelikhasi:</i>		[]	
5. Pictogram Nos. <i>Tinombolo temifanekiso:</i>		[]	
6. Folder <i>Ligama lefolda:</i>		[]	
7. File No. <i>Inombolo yelifayela:</i>		[]	
8. Time Line (<i>Luhlu lwesikhatsi</i>):			
(a) Speech Time (S) <i>Sikhatsi senkhulumo:</i>	[.....]		
(b) Event Time (E) <i>Sikhatsi senkhulumo:</i>	[.....]		
(c) ReferenceTime (R) <i>Kuphawula sikhatsi:</i>	[.....]		
9. Conjugation <i>Kuphila noma kuvuma:</i>	[.....]		
10. Timeline Period Sheets	(1)	(2)	
Time Symbol Pictograms	(3)	(4)	
Conjugation Symbol Pictogram	(5)	(6)	
	(7)	(8)	
Age Group:			
Gender:			
Digital File No:			
Cassette Tape No:			